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CONTENTS.

SUMMARY: —
The new New York Building-Law. — The Law limiting the Height of Buildings in New York. — Investigating the Effect of Earthquakes on Buildings. — Aseismic Foundations. — A Permanent French Commission on Competitions. — Inoculation for Cholera. — Prize offered for an Ambulance Barrack by the Empress of Germany. — A Recent Discovery at Rome. 289
THE NEW MECHANICS' LIEN LAW OF NEW YORK. . . . . 291
THE PALAZZO VECCHIO, FLORENCE. . . . . 293
THE ILLUSTRATIONS: —
Sketches from the Palazzo Vecchio, Florence, Italy. — Crazy and Sham Roofs in and about Boston, Mass. — Interior of the First Ecclesiastical Society's Church, Wethersfield, Conn. 295
ON POINTS OF VIEW AND METHODS OF CRITICISM OF PUBLIC WORKS OF LANDSCAPE ARCHITECTURE. — I. . . . . 295
WILLIAM MORRIS AT WORK. . . . . 296
COMMUNICATIONS: —
Fresh or Stale Portland Cement. — Books on Hotel-building. — *Engineering*. — A Correction. . . . . 298
NOTES AND CLIPPINGS. . . . . 298

BOTH the so-called Daly building-law and the law restricting the height of buildings have been signed by the Governor of New York, and are now in force in the city to which they apply. Concerning the Daly law we shall not venture to speak at present, the complete text, as finally amended and passed, not having been yet published, but, unless it has been materially changed from the original draft, it will be found, we think, much better suited than the old one to the varying conditions under which city buildings are now constructed. One important provision rescinds the law passed three or four years ago, which authorized the construction of wooden buildings on Manhattan Island north of One Hundred and Fortieth Street, and directs that no more frame buildings shall be erected south of One Hundred and Forty-ninth Street. We have repeatedly expressed our opinion that the State government made a mistake in relaxing the original regulations, which forbade the construction of any frame buildings on the island, and we hope that the new law will soon be so amended as to restore the earlier rule. The upper portion of Manhattan Island is so narrow that the progress of what may be called the normal building movement of the metropolis, which occupies entire streets, one after the other, with solid blocks of handsome brick or stone houses, has now become very rapid, and the mean wooden structures which the law of three or four years ago propagated like mushrooms in the region between One Hundred and Fortieth and One Hundred and Fiftieth Streets will soon be enveloped in masses of first-class buildings, whose value they will diminish as much by their shabby appearance as by the danger of fire to which they expose everything about them. The removal of the authorized limit from One Hundred and Fortieth to One Hundred and Forty-ninth Street really does nothing to improve matters, if, indeed, it does not aggravate the inconveniences and dangers incident to the operation of the old law. As it happens, the region about One Hundred and Fifty-second Street has long been thickly settled, and, under the name of Carmansville, or Washington Heights, has taken something such a place as that which Harlem and Manhattanville occupied in relation to New York twenty years ago. Harlem and Manhattanville, which, at the close of the war, were pleasant suburban towns, have long been swallowed up by the advancing tide of the city, and are as much a part of the great metropolis as the Bowery, which many people can remember as a shady village road; and when the same fate overtakes the beautiful little gardens of Washington Heights, as it must before long, every cheap wooden building will stand for so much capital, not perhaps unproductively invested, but representing an injury to the value of the surrounding estates which would pay for it twice over. It is needless to say that the persons who take advantage of these provisions for frame buildings are not the poor workingmen in whose interest they are ostensibly devised, but speculators, who crowd their cheap structures close to the legal limit, with the idea of offering their houses in competition with the brick ones just below, and securing, at paying prices, tenants who care less for the substantial character of their dwellings than for the saving of a few dollars in rent; and hardly anything worse could happen to the property-owners of Washington Heights than to have their portion of the city filled up, to the exclusion of the better class of buildings, with such structures as those which for so many years kept respectability and decency out of the region extending from the Five Points to Houston Street and Broadway.

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CONCERNING the value of the other law, restricting the height of dwelling-houses to seventy feet, there are, very naturally, many opinions. It is noticeable that the New York newspaper which found the most to commend in the measure before it was passed is edited and published in one of the loftiest buildings in the city, and we venture to predict that the persons who now own flats or apartments so high above the adjoining houses as to enjoy sunshine and prospect over their neighbors' estates will be found, to a man, enthusiastic advocates of the new law, which, of course, preserves to them for an indefinite period the privileges which they have already secured. So far as the appearance of the city is concerned, there can be no doubt that the prohibition of ten-story apartment houses will be beneficial. As now constructed, they admit of few pleasing architectural effects, while they efface, so to speak, the buildings of ordinary size about them. Whether they shade the streets in front of them to an objectionable degree or not is less certain; but we are becoming so accustomed to vast open spaces in our cities that anything which casts a shadow across the street seems to us a grievance, and we forget all about the advantages of the shelter which goes with the shade, and which New York streets need so much in winter.

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MR. MILNE, the Professor of Engineering in the Imperial College of Tokio, in Japan, has employed his leisure moments in making some important observations in regard to the effects of earthquakes, which are very common in that country. The occasion of his first experiments seems to have been his appointment as designer of certain lighthouses for the Imperial Government. It is necessary that the lamps of a lighthouse should be as steady as possible, and as an aid in devising means for lessening the effect of vibrations of the earth, he set himself to ascertain the character of the movements to be counteracted. By comparison of observations recorded simultaneously at several stations, he found that the effect of an earthquake shock, at least in that region, resembles very closely, as he says, that of the explosion of a torpedo under water. Just over the centre of disturbance there is a strong vertical movement, which changes to a lateral vibration as the earthquake propagates itself in all directions, something as the vertical jet of water thrown up by a torpedo dies away outwardly into circles of surface undulations. Like the waves of a submarine explosion also, the lateral earthquake movements are found to be quite superficial, the vibrations at the bottom of a pit ten feet deep being only one-sixth as great as on the surface close by, while they seem to follow certain lines, which are fixed for each locality, the instruments at one of Professor Milne's stations, for instance, always registering about six times as much movement as those at the other stations near by.

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TO protect a building against the effect of a vertical movement of the earth under it is a difficult matter, but this sort of motion takes place over such limited areas that the lateral vibration is in practice the principal one to be guarded against. Our readers know already how the Japanese steady their pagoda towers, by hanging from the apex of the roof a pendulum of heavy timber; and Professor Milne found that they protect also their lighter buildings to a certain extent against dislocation by putting under them, in place of piers, rounded boulders, which roll slightly on their beds, and thus absorb the lateral movement of the ground, instead of transmitting it to the building above. Acting upon this suggestion, Professor Milne rested the lamp-chamber of his first light-house on cannon-balls, which allowed it to roll freely within certain

limits; but the movement was found to take place with so much facility that the wind would shift the structure to an annoying extent, and the system was modified in the towers subsequently built by placing a large number of cast-iron shot, about a quarter of an inch in diameter, under the foundations. This device seems to have answered its purpose very well, and is well worth remembering by those who may have occasion to build either light or heavy buildings in earthquake countries. In regard to the effects which earthquakes may be expected to produce upon buildings not so protected, Professor Milne's observations are very instructive. The two classes of structures which he found to bear such shocks best were stone buildings, very heavy and very strongly bonded, and light framed buildings of wood, whose elasticity enabled them to recover from the vibration imparted to them. Those most affected were buildings constructed partly of wood and partly of masonry, as framed houses with brick chimneys. Here the movement of the masonry was so different from that of the wood-work that neither gave any support to the other, and the masonry generally fell first, bringing down with it the surrounding framing.

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WHAT most energetic of professional associations, the Société Centrale des Architectes, has set the example of establishing a permanent commission, charged with the duty of considering all questions which may be brought before it relating to competitions, and of giving information and advice on matters connected with this subject, not only to architects, but to building-committees, public bodies, societies or private individuals, for whom programmes and terms of competition will be prepared, juries selected, and prizes arranged. The commission consists for the present year of M. Questel, the President of the Société Centrale, and one of the three or four most distinguished architects in France, MM. Hermant, Labrouste and Wallon, Vice-presidents and Secretary of the society, MM. Alphand and Poulin, the official directors of public building operations, and twenty other architects, among whom are MM. Andre, Ballu, Garnier, Ginain, Vaudremer, Daumet, Guillaume, Normand, Pascal, Raulin, Hénard and Sedille, besides others of equal distinction in their own country, but perhaps less known here. Every member of the Commission has the star of the Legion of Honor printed after his name, and eight are members of the Institute of France, so that their opinions and decisions will certainly carry with them all the weight that high public and professional position can bestow. Notwithstanding the multiplicity of the duties which usually press upon men of this class, the members of the Commission have accepted their new charge with something like enthusiasm, and invite all who wish for their help or counsel to apply to them freely, promising to use prompt, earnest efforts in their behalf. It is difficult to see how a greater service than this could be rendered by the older and more distinguished members of the profession to their younger brethren; and as *La Semaine des Constructeurs* says of the Society of Mutual Defence, the plan of which originated among the same men, the more honor should be rendered them for their devotion to the common interest, for the reason that, personally, they have nothing to gain by it, their position securing them already against the injustice from which they wish to protect others.

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MOST of our readers have probably heard something about the inoculation which Dr. Ferran, of the province of Valencia, in Spain, has been practising of late as a preventive of cholera. Valencia is at present the scene of a very violent epidemic of cholera, and nearly two thousand persons have, we believe, submitted to the Ferran treatment, with results so far satisfactory that only a small percentage of those inoculated have been subsequently attacked with cholera, and few, if any, of those attacked have died. At the same time, cholera being, unlike small-pox, a disease which may occur any number of times in the same subject, and Dr. Ferran's artificial symptoms being rather unlike those of real cholera, there is some reason for believing that his inoculation produces nothing but mild blood-poisoning instead of an artificial and protecting form of cholera, and that the immunity which it appears to give against the attacks of the epidemic is partly due to the moral effect of the confidence felt by those who have undergone the operation, although even ordinary blood-poisoning may for a time enable the system to resist the attacks of the cholera infection. As now practised, according to the *Sanitary Engineer*, Dr. Ferran's inoculation consists in the introduction, generally into the lower arms, of small quantities of liquid containing a modified form of Koch's cholera bacillus, produced by the ordinary modes of culture. After a few hours the arms swell, and pains and nausea occur, attended with cramps and fever. In twenty-four hours the symptoms begin to abate, and at the end of forty-eight hours the patient is generally as well as ever; and subsequent inoculations produce no further effect upon him.

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WE learn from the *Scientific American* that the Empress of Germany, who has long been distinguished for her intelligent interest in sanitary matters, offers a prize of one thousand dollars in gold and a gold medal for the best design for a movable "ambulance barrack," by which appears to be meant a small, portable hospital. The structure must be so planned that it can be used on the battle-field, or as an isolating ward during epidemics, or can, if required, be connected with others as a part of a larger hospital. As a building, the structure must be substantial and warm for winter use, but it must be so designed that it can be readily taken down, packed in small compass, and set up in a new place without the aid of skilled labor. Provision must be made for heating and for ventilation in winter, when the doors and windows are shut, and the walls and floors must be capable of thorough and easy disinfection without injuring them. The "barrack" must be long enough to accommodate twelve beds, allowing at least twelve cubic metres of space to each bed. Competitors are required to submit floor-plans, and transverse and longitudinal sections of their designs, at one twenty-fifth the full size, with details of the modes of construction, of heating and ventilation, and of the arrangement of water-closets, which may be either attached to the building or isolated. Detail drawings are to be at either one-fifth or one-tenth the full size, and the places for the beds must be shown on the plans. With the drawings must be submitted a description and approximate estimate, written in French, German, English and Italian. Those who enter for the prizes must submit, in addition to the rest, a model of the building at one-fifth the full size; but honorable mention may be given to those who represent their designs by drawings and descriptions only. Persons who intend to compete are required to send notice of their intention before the fifteenth of July to the "Commissariat-General," 10a Rue de la Loi, Brussels, Belgium, and further information is to be obtained by addressing the International Committee of the Red Cross, Geneva, Switzerland.

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*LA SEMAINE DES CONSTRUCTEURS* gives an account of an ancient house recently discovered at Rome, in the Via Statuto. The structure is considered to date from the fourth century, and contains only two rooms on the ground floor, ornamented with stucco and wall paintings in bad condition. A little stair, however, leads to an underground passage, opening into a room in which was found, when the house was opened, a marble table supporting a statue of a youth slaying a bull, the common representation, as it appears, of the Persian god, Mithras. In front of the idol still lay upon the table a wooden stick, with seven nails in it, on which were stuck the candles which the pagans were accustomed to burn on certain occasions to the seven planets, and several lamps of the common pattern of the fourth century were disposed around. By the side of the room in which the idol stood was a bath-room. The passageway at the foot of the stairs was blocked with stones, and it is supposed that the inhabitants of the house, fearing the displeasure of the Christians, who were then in full possession of the Roman government, first constructed this sanctuary for the unobserved worship of their deity, and then, finding themselves either compelled to leave their homes, or in danger of hostile visitation, took the precaution of barricading the passage, to prevent the invasion of the sacred place. It is known that a tradition existed among the pagans of that time that the Christian religion would endure only three hundred and sixty years, and this is not the first instance in which idols dating from about the same period have been found installed in concealed or inaccessible rooms, waiting for the revolution which should again bring them and their worshippers into honor.

## THE NEW MECHANICS' LIEN LAW OF NEW YORK.

TEXT OF THE BILL JUST SIGNED BY GOVERNOR HILL.

Font. Castle Rising, England.

AN ACT for the better security of mechanics, laborers and others who perform labor or furnish material for buildings and other improvements in the several cities and counties of this State, and to repeal certain acts and parts of acts. Passed May 27, 1885.

*The People of the State of New York, represented in Senate and Assembly, do enact as follows:*

SECTION 1. Any person or persons, firm or firms, corporation or association, who shall hereafter perform any labor or service, or furnish any materials which have been used or which are to be used in erecting, altering or repairing any house, wharf, pier, bulkhead, bridge, vault, building, or appurtenances to any house, building or building lot, including fences, sidewalks, paving, fountains, fish-ponds, fruit and ornamental trees, with the consent of the owner, as hereinafter defined, or his agent or any contractor or sub-contractor, or any other person contracting with such owner to erect, alter or improve as aforesaid, within any of the cities or counties of this State may, upon filing the notice of lien prescribed in the fourth section of this act, have a lien for the principal and interest of the price and value of such labor and material upon such house, wharf, piers, bulkheads, bridges, vault, building or appurtenances, and upon the lot, premises, parcel or farm of land upon which the same may stand or be intended to stand to the extent of the right, title and interest at that time existing of such owner, whether owner in fee of a less estate, or whether a lessee for a term of years, or vendee in possession under a contract existing at the time of the filing of said notice of lien or of the owner of any right, title or interest in such estate which may be sold under an execution under the general provisions of the statutes in force in this State relating to liens of judgment and enforcement thereof, and also to the extent of the interest which the owner may have assigned by a general assignment for the benefit of creditors within thirty days prior to the time of filing the notice of lien specified in the fourth section of this Act. But in no case shall such owner be liable to pay, by reason of all the liens filed pursuant to this act, a greater sum than the price stipulated and agreed to be paid in such contract and remaining unpaid at the time of filing such lien, or in case there is no contract than the amount of the value of such labor and material then remaining unpaid, except as hereinafter provided.

SEC. 2. If the owner or such person in interest as aforesaid, of any house, wharf, pier, bulkhead, bridge, vault, building or appurtenances, for or toward the construction, altering, repairing or improvement of which, labor and service have been performed or materials have been furnished by contract, whether oral or written, shall, for the purpose of avoiding the provisions of this act or in advance of the terms of any contract, pay by collusion any money or other valuable thing on such contract, or give a mortgage or make any other lien or incumbrance upon said house, wharf, vault, building or appurtenances, lot, premises, parcel or farm of land upon which the same may stand or be intended to stand, or said improvement shall be made, and the amount still due or to become due to the contractor, sub-contractor or assignee after such payment has been made, shall be insufficient to satisfy the claims made in conformity with the provisions of this act, the owner or other person in interest as aforesaid, shall be liable to the amount that would have been unpaid to said contractor, sub-contractor or assignee, had said owner or other person in interest made no such payment or given no such mortgage, or effected no such lien or incumbrance, at the time of filing the notice of lien prescribed in the fourth section of this act, in the same manner as if no such collusive payment, mortgage, lien or incumbrance had been made, given or effected.

SEC. 3. Any person or persons, firm or firms, corporation or association, performing any labor, or service, or furnishing any materials for any of the purposes specified in the first section of this Act, to or for any person other than the owner, may at any time demand of such owner or of his authorized agent, the terms of the contract or agreement by which said house, wharf, pier, bulkhead, bridge, vault, building or appurtenances is being erected, altered, repaired, or improvements made to any such house, building or building lot, and the amount due or unpaid the person or persons, firm, corporation or association, erecting, altering, repairing or improving the same; and if such owner or his said agent at the time of said demand shall neglect or refuse to inform the person making such demand of the terms of the contract or agreement under which the same are being erected, altered, repaired or made, and the amount due and unpaid upon such contract or agreement therefor, or shall intentionally and knowingly falsely state the terms of said contract or agreement, or the amount due or unpaid thereon; and if the person, persons, firm or firms, corporations or associations furnishing such materials or performing such labor or service, shall sustain loss by reason of such refusal or neglect or false statement, the said owner shall be liable to them in an action therefor and the return unsatisfied of an execution against the party to whom such materials were furnished or for whom such labor and service were performed, in an action for the collection of the value thereof, shall be presumptive proof of such loss, and the person or persons, firm or firms, corporation or association furnishing such materials or performing such labor and service or making such improvement, shall by filing the notice of lien within the time and in the manner prescribed by this act, have a lien upon the house, wharf, vault, pier, bridge, bulkhead, building or appurtenances, and upon the lot, premises, parcel or farm of land upon which the same may stand or be intended to stand, or improvement is made, as in this act provided, for all the materials furnished and labor and service performed after such neglect, refusal or false statement.

SEC. 4. At any time during the performance of the work or the furnishing of the materials, or within ninety days after the completion of the contract, or the final performance of the work, or the final furnishing of the material for which a lien is claimed, dating from the last item of work performed or from the last item of material furnished, the person or persons, firm or firms, corporation or association furnishing such materials or performing such labor or service, may file a notice of a lien in writing in the clerk's office in the county where the property is situated against which the lien is asserted, containing the names and residences of the claimants, the nature and amount of the labor and service performed, or the materials furnished or to be furnished, with the name of the owner, lessee, general assignee, or person in possession of the premises against whose interest a lien is claimed; the name of the person or persons, firm or firms, corporation or association by whom he was employed, or to whom he furnished or is about to furnish such materials, or whether all the work for which the claim is made has been actually performed or furnished, and if not, how much of it, and also a description of the property to be charged with a lien sufficient for identification, and if in a city or village the situation of the building or buildings by street and number, if the street and number be known. But the failure to state the name of the true owner, lessee, general assignee, or person in possession, shall not impair the validity of the lien. The said notice of lien must be verified by the person or one of the persons, member of a firm or firms, an officer of the corporation or association making the claim or his, its or their agent, to the effect that the statements therein contained are true to the knowledge or information and belief of the person making the same. The county clerk of each county shall provide and keep a book in his office to be called the "lien docket," which shall be suitably ruled in columns headed "claimants," "against whom claimed," "owners and parties in interest," "premises," "amount claimed," in which he shall enter the particulars of such notice of lien together with the date, hour and minute of filing of the notice of lien, and what proceedings have been had, the names of the owners and persons in interest, and other persons against whom the claims are made shall be entered in said book in alphabetical order. A fee of twenty cents shall be paid to said clerk on filing such notice of lien. Every claimant shall, within ten days after filing his notice of lien as herein provided, serve a copy of such notice upon the owner, or other person in interest by delivering the same to him personally, or by leaving a copy thereof at his last known place of residence in the city or town in which such lands or part thereof are situated, with some person of suitable age and discretion, or if such owner or person in interest has no such residence, or such person cannot be found, by affixing a copy thereof conspicuously on said premises described in said notice of lien, between the hours of 9 o'clock in the morning and 4 o'clock in the afternoon. And after such service such owner or the person in interest shall not be protected in any payment made to such contractor or other claimant.

SEC. 5. The liens provided for in this act shall be preferred as prior liens to any conveyance, judgment or other claim which was not docketed or recorded at the time of filing the notice of lien prescribed in the fourth section of this act, and prior to advances made upon any mortgage on the premises after filing of such notice of lien, and prior to the claim of any creditor who has not furnished materials or performed labor upon any land, or towards the erection or improvement of premises, described in said notice of lien and which have been assigned by the owner, lessee, or person in possession thereof, by a general assignment for the benefit of creditors within thirty days before the filing of the notice of lien provided for in the fourth section of this act. But nothing in this act shall affect the priority of the amount actually owing on a mortgage given for purchase-money. In cases in which the owner has made an agreement to sell and convey the premises to the contractor or other person, such owner shall be deemed to be the owner within the intent and meaning of this act, until the deed has been actually delivered and recorded, conveying said premises pursuant to such agreement.

SEC. 6. No lien provided for in this act shall bind the property therein described for a longer period than one year after the notice of lien has been filed, unless within that time an action is commenced to enforce the same; and if the action is in a court of record, a notice of the pendency of such action is filed with the county clerk of the county in which such notice of lien is filed, containing the names of the parties to the action, the object of the action, and a description of the premises affected thereby, and the time of filing the notice of lien. Or unless an order be made by a court of record continuing such lien, and a new docket be made stating such fact. And when a claimant is made a party defendant to any action brought to enforce any other lien, such action shall be deemed an action to enforce the lien of such defendant, who is a claimant within the provisions of this act. The neglect to file the notice of pendency, provided for by this act, shall not abate any action which may be pending to enforce the lien, but such action may be prosecuted to judgment against the person or persons, firm or firms, corporation or association liable for the debt.

SEC. 7. Any claimant who has filed the notice of lien mentioned in the fourth section of this act, may enforce his claim against the property therein mentioned, and against the person or persons, firm or firms, corporation or association, liable for the debt, by a civil action in a court of record in the city or county where the property is situated, which would have jurisdiction to render a judgment in an action founded upon a contract, for a sum equal to the amount of the lien.

SEC. 8. The manner and form of instituting and prosecuting any such action to judgment, or an appeal from such judgment shall be the same as in actions for the foreclosure of mortgages upon real property, except as herein otherwise provided. A certified copy of the notice of lien filed, as herein provided, shall be entitled to be read in evidence, with the same force and effect as if the original were provided, and such copy shall be *prima facie* evidence of the execution and filing of the original.

SEC. 9. An action to foreclose a lien, provided for in this act, may be brought in a court not of record, which would have jurisdiction to render a judgment in an action upon a contract for a sum equal to the

amount of the lien, and shall be commenced by the personal service anywhere within this State, of a summons and a complaint verified according to the provisions of Section Five Hundred and Twenty-Six of the Code of Civil Procedure, upon the owner or other person in interest as described heretofore in this act. The complaint must set forth substantially all the facts contained in the notice of lien filed with the clerk of the county as provided in Section Five of this Act, and the substance of the contract. The form and contents of the summons shall be the same as prescribed by the Code of Civil Procedure for the commencement of an action in a court not of record. The summons must be returnable not less than twelve nor more than twenty days after the date when it is issued.

Sec. 10. When the summons in an action in a court not of record cannot be served personally on the owner or party in interest, by reason of absence from the State or concealment therein, such service may be made by leaving a copy of such summons at the last place of residence of such owner or person in interest, as aforesaid, and by publishing a copy of such summons for three weeks in succession in a newspaper published in the city or county where the property is situated. If the service of the summons is made by publication, the time when said summons is returnable shall commence to run from the day of the last publication.

Sec. 11. At the time and place specified in the summons for the return thereof, issue must be joined if both parties appear, by the owner or other person in interest filing with the justice an answer in writing verified as herein provided for verifying the complaint, and which may contain a general denial of each allegation of the complaint or a specific denial of one or more of the material allegations thereof; it may also set forth any legal or equitable defense or counter-claim to such complaint. If the owner or other party in interest fails to appear on the return day of the summons on proof by affidavit of the service of the summons and complaint, if personal service thereof be made, or if by publication or proof of the service of summons by advertisement, judgment may be entered for the amount claimed in the complaint with the costs; execution may thereupon be issued for the collection of said judgment and costs, the same as upon judgments in actions on contract in such courts, except that the execution shall direct the officer to sell the right, title and interest of the owner or other person in interest as aforesaid in the premises, upon which the claim set forth in the complaint was a lien at the time of filing the notice of lien prescribed in the fourth section of this act.

Sec. 12. The issue joined as provided in the preceding section, must be tried the same as other issues are tried in the respective courts in which the action is brought, and the judgment thereon be enforced; if for the claimant as provided in the preceding section, if for the owner or other person in interest it must be enforced the same as in actions arising on contracts in the respective courts.

Sec. 13. Appeals may be taken from such judgments rendered in courts not of record, in the same manner and according to the same provisions provided by statute for appeals from judgments in actions in such courts arising on contract for the recovery of money only.

Sec. 14. Costs and disbursements, except in courts not of record, in which they shall be the same as allowed in civil actions in such courts, shall rest in the discretion of the court, and may be awarded to or against the plaintiff or plaintiffs, defendant or defendants, or any or either of them as may be just and equitable except as provided in Section Nineteen of this Act, and shall be included in the judgment recovered therein. The expenses incurred in serving the summons by publication may be allowed in courts not of record, and added to the amount of costs now allowed in said courts. When an action is brought in a court of record such direction shall be made in the discretion of the court, as to the payment of costs as shall be just and equitable, and the judgment entered shall specify to whom and by whom the costs are to be paid.

Sec. 15. Whenever in any action brought under the provisions of this act, any claimant shall fail, for any reason, to establish a valid lien, he may nevertheless recover therein judgment against the party or parties to the action for such sum or sums as may appear to be due to him, and which he might recover in an action upon a contract against the said party or parties.

Sec. 16. A transcript of every judgment rendered under and according to the provisions of this act headed "lien docket," shall be furnished by the clerk of the county where rendered and docketed to the successful party, who may file the same with the clerk of any other county, and if the judgment is for twenty-five dollars or upwards, exclusive of costs, the same shall thereafter be a lien on the real property in the county where the same is filed and docketed of every person against whom the same is rendered, in like manner and to the same extent as in other actions for the recovery of money arising on contracts. When the action is tried and the judgment rendered in a court not of record, the justice of the court in which the action is tried, or other person authorized to furnish transcripts of judgments therein shall furnish the successful party a transcript thereof, who may file the same with the clerk of the county with whom the notice of lien is filed. The filing of such transcript shall have the same effect as the filing of transcripts of judgments rendered in such courts not of record. In all cases where the judgment is against the claimant or claimants the county clerk shall enter the word "discharged" under the last head in his lien docket.

Sec. 17. Any person or persons, firm or firms, corporation or association, filing a notice of lien, or the assignee of such person or persons, firm or firms, corporation or association, after the filing thereof, shall be the plaintiff in such action. The plaintiff must make the parties who have filed notice of liens against the property as well as those who have subsequent liens and claims by judgment, mortgage or conveyance, parties defendant. And as to all persons, firms, corporations or associations against whom no personal claim is made the plaintiff may with the summons serve a notice stating briefly the object of the action, and that no personal claim is made against it or them. And all persons, firms, corporations or associations, who have filed notice of liens under this act shall by answer in such action set forth the same, and the court in which the action is brought may settle and determine the equities of all the parties thereto, and decide as to the extent, justice and priority of the claims of all parties to the action and upon every counter-claim or set-off alleged therein, to the extent of their respective jurisdictions. The provisions in this section in regard to making parties who have filed notices of liens against the property as well as those who have subsequent liens and claims by judgment, mortgage or conveyance, parties defendants shall not apply to proceedings to enforce liens instituted in courts not of record.

Sec. 18. Any persons, firms, corporations or associations claiming liens upon the same property may join in the same action, and when separate actions are commenced the court in which the first action was brought may, upon the application of the owner of the property, or of any part thereof, or of any party to either action, consolidate them. The provisions of this section shall not apply to actions commenced in courts not of record.

Sec. 19. At any time after an action is commenced, the owner or owners of the property affected, may, in writing, offer to pay into court any amount stated in the offer, or to execute and deposit any securities or papers which he may describe, in discharge of the lien or liens. If the offer is accepted in writing within ten days thereafter, the court in which the action is pending may make an order that on executing and depositing with the clerk of the county the amount offered or the securities or papers described, the lien or liens be discharged and the moneys or securities deposited take the place of the property upon which such lien or liens was or were created, and shall be subject to the same. In case the offer shall not be accepted within ten days, and the plaintiff fails to recover any more favorable judgment against the property, he shall pay any cost in the action incurred by the owner from the time of the offer.

Sec. 20. All persons, firms, corporations, or associations entitled to liens, under the provisions of this act, except those who contracted with the owner, shall be deemed sub-contractors, and the court in the judgment shall direct the amount due sub-contractors to be paid out of the proceeds of sales, before any part of such proceeds are paid to the contractor. In case of several buildings erected, altered or repaired under one contract and of conflicting liens, each lienor shall have priority upon the particular building or premises where his labor is performed or his material used. Persons standing in equal degree as co-laborers or various persons furnishing materials shall have priority according to the date of filing their liens. Where several notices of liens are filed for the same demand, as in case of a contractor including claims for workmen to whom he is indebted, and the lien by the workmen, the judgment shall provide for the proper payment, so that, under the liens filed, double payment shall not be required. And no payments voluntarily made upon any claim which has been filed as a lien shall impair the lien of any person except the lien of the person so paid to the amount of such payment.

Sec. 21. In every case in which different liens are asserted against property, the court in the judgment must declare the priority of each lien, and the proceeds of the sale of the property must be applied to each lien in the order of its priority.

Sec. 22. Whenever, by the terms of his contract, the owner has stipulated for the delivery of bills, notes or other obligations or securities, or of any other species of property in lieu of money, the judgment may direct that such substitute be delivered or deposited as the court may direct, and the property affected by the liens can only be directed to be sold in default of the owner to deliver said substitutes within such time as may be directed.

Sec. 23. Whenever, on the sale of property against which a notice of lien is filed as provided in the fourth section of this Act, there is a deficiency of proceeds, judgment may be docketed for the deficiency against the persons, firms, corporations or associations named in the judgment as personally liable therefor, and therein adjudged to pay the same in like manner and with like effect as in actions for the foreclosure of mortgages. The provisions of this section shall not apply to actions commenced in courts not of record.

Sec. 24. A lien may be discharged as follows:

1. By filing a certificate of the claimant or his successor in interest, duly acknowledged or proved, stating that the lien is satisfied and may be discharged.

2. By depositing with the county clerk, if before the suit, of a sum of money equal to the amount claimed, with interest to the time of such deposit.

3. After the commencement of the action, by the deposit with the clerk of the county of such sum of money as in the judgment of the court, after due notice to all claimants or parties to the action, will be sufficient to pay any judgment which may be recovered against the property. In case the deposit of money is made with the county clerk as provided in subdivisions two and three of this section, the same shall be repaid by said clerk to the party making such deposit, or his assigns, upon the lien or liens being discharged by the claimants who have filed a notice or notices of lien or liens.

4. By the lapse of time. When one year has elapsed from the time of filing the notice of lien, and no action has been commenced either to enforce such claim or order of the court made continuing said lien, as provided in Section Six of this Act.

5. By order of the court for neglect of the claimant to prosecute the same as hereinafter provided. The owner of the property or of any part thereof affected by and notice of lien filed under this Act or the person or persons, firms, corporations or associations against whom the claim is made, may, at any time after the filing of the notice of lien, serve a notice in writing upon the claimant or any one of several claimants united in interest, or by leaving such notice at his last known place of residence, with some person of suitable age, with direction to deliver the same, requiring said claimant to commence an action to enforce the claim within the time to be specified in the notice, which shall not be less than thirty days from the time of such service; or to show cause at a special term of any court of record, at which a motion might be made in an action to enforce the lien or at a county court of the county in which the property is situated at a time to be specified in

such notice, why the notice of lien filed should not be vacated and cancelled of record. Thereupon, upon due proof of the service of said notice, and that no action has been commenced to enforce the claim, the court may make an order that the claim be vacated and cancelled of record.

6. By the owner of the premises, person or persons, firm or firms, corporations or associations against whom or which the notice of lien is filed, executing with two or more sufficient sureties, who shall be freeholders, a bond to the clerk of the county where the premises are situated, in such sum as the court may direct, not less than the amount claimed in said notice, conditioned for the payment of any judgment which may be rendered against the property. The sureties on said bond must justify in at least double the sum named in the said bond. A copy of the said bond, with a notice that the sureties will justify before the court or a judge thereof, at the time and place therein named, not less than five days thereafter, must be served on the claimant or his attorney. Upon the approval of said bond by the court or a judge thereof, an order discharging such lien may be made by the court or a judge thereof.

SEC. 25. This act is hereby declared to be a remedial statute and is to be construed liberally to secure the beneficial interests and purposes thereof; and a substantial compliance with its several provisions shall be sufficient for the validity of the lien, or liens hereinbefore provided for, and to give jurisdiction to the courts to enforce the same.

SEC. 26. Chapter one hundred and eigh y-four of the laws of eighteen hundred and forty-six, chapter one hundred and sixty-nine of the laws of eighteen hundred and fifty-one, chapter three hundred and eighty-four of the laws of eighteen hundred and fifty-two, chapter four hundred and two of the laws of eighteen hundred and fifty-four, chapter six hundred and sixty-three of the laws of eighteen hundred and fifty-seven, chapter four hundred and seventy-eight of the laws of eighteen hundred and sixty-two, chapter five hundred of the laws of eighteen hundred and sixty-three, chapter three hundred and sixty-six of the laws of eighteen hundred and sixty-four, chapter seven hundred and seventy-eight of the laws of eighteen hundred and sixty-five, chapter five hundred and fifty-eight of the laws of eighteen hundred and sixty-nine, chapter one hundred and ninety-four of the laws of eighteen hundred and seventy, chapter four hundred and eighty-nine of the laws of eighteen hundred and seventy-three, chapter five hundred and fifty-one of the laws of eighteen hundred and seventy-four, chapter three hundred and seventy-nine of the laws of eighteen hundred and seventy-five, chapters one hundred and forty-three and four hundred and eighty-six of the laws of eighteen hundred and eighty, sections eighteen hundred and seven to eighteen hundred and twenty-three inclusive of chapter four hundred and ten of the laws of eighteen hundred and eighty-two, sections eleven to twenty-seven inclusive of chapter two hundred and seventy-six of the laws of eighteen hundred and eighty-three, and all acts amendatory of the above-mentioned acts or extending the provisions thereof, are hereby repealed. But this act shall not be so construed as to affect, enlarge, invalidate or defeat any lien or right to a lien now existing, or any proceeding to enforce such lien, now pending by virtue of any of the provisions of the acts hereby repealed, nor to revive any other or former acts or parts of act repealed by the acts hereby repealed.

SEC. 27. This act shall take effect immediately.

## THE PALAZZO VECCHIO, FLORENCE.

Between Dormers, Nat. Hist. Museum, London. Eng. Alfred Waterhouse, R.A. Archt.

ONE of the most imposing monuments in all Italy is the huge, fortress-like castle which has served for so many years as the seat of the popular government in Florence, and which from the throng of old associations centering about it, no less than from the gray, time-stained appearance of its walls, has received the name of the Palazzo Vecchio, or the ancient palace. Officially it is known as the Palazzo della Signoria. We are told that the gonfalonier and priors of the early republic were for a long time without any fixed residence, until about the year 1278, when it was decided to erect a strong castle in the centre of the city, of sufficient height and strength to protect the chief magistrates in case of insurrection, and to command the high towers which had been erected by the turbulent nobles all over the city. Arnolfo di Cambio, who had already distinguished himself by building the outer line of city walls, and who a few years later built the cathedral and restored the baptistery, was employed as the architect, and the Palazzo Vecchio as it now stands is substantially in appearance just as he designed it.

The building is totally lacking in those ideas of symmetry which were considered of so much importance by the later architects. The houses of the then powerful Vacca family occupied the space devoted to the palace, and were incorporated in part into the new structure, the Vacca tower being used by Arnolfo as a foundation for his more extensive erection, whence the later tower is considerably out of centre of the façade. The principal entrance, also, is small, and at one side the windows are placed solely with reference to the interior, and the archings of the corbelled cornice are unequal; but there is nevertheless a wonderful dignity and repose about the structure, which quite atones for any lack of arrangement, and the tower looms up so grandly and simply that even the crudest building would be ennobled by it. Arnolfo did not build all of the tower; at least it would seem more probable that the upper portion was completed at a later date, for the main building is crowned by square-topped battlements, a form used exclusively by the party of the Guelphs, which was in power at the time the palace was begun; while the swallow-tail form of the battlements about the top of the tower is the sign of the Ghibelline faction, though the finish may have been given this form by the republican government, in order to conciliate the opposite party. Trifles even more insignificant than these were sometimes a pretext for bloody civil war in those old Florentine days.

The Palazzo is built entirely of coursed rubble stone-work left with natural rock faces. The courses are small, and there are no large stones used anywhere, but the effect of the front is rather improved thereby, simple and unbroken as it is with so very few details. There is some carving about the windows of the two upper stories, one of which is shown on the sheet of sketches. The inner framework of the windows is of white marble, and in the spandrils are carved alternately the cross and the lily, the two popular Florentine emblems. The only other cut-work is on the two string-courses and the corbels. Arnolfo di Cambio seemed always to have known when to stop, and none of his buildings have a superabundance of ornamentation. At the north angle of the building is a large marble lion, the *Marzocco* of Florence, after a bronze by Dontatello, and over the door is a small canopy bearing two smaller lions; but both these features are comparatively modern additions.

The tower rises abruptly to a height of three hundred and eight feet. It is the most prominent object in Florence, and commands a magnificent view off over the city and along the broadening valley of the Arno. In a small cell near the top, barely three by six feet, Girolamo Savonarola was confined for forty days prior to his execution in the piazza before the palace. The spot where he suffered is marked by an ugly rococo fountain and an ungainly statue of Hercules by Bandinelli, an unworthy successor of the David by Michael Angelo, which stood here until 1873. In another small tower cell Cosimo I was imprisoned by the angry Florentines, and barely escaped with his life by bribing the new gonfalonier.

On the top of the tower is a small marble tablet commemorating a rather peculiar event in Florentine history, when the Gonfalonier Nicolo Capponi, in 1528, fearing equally the power of the Pope, the Medicis and the French, persuaded the people to cast a popular vote for Jesus Christ as King of Florence. Capponi placed a similar tablet over the entrance of the palace, but the proposed scheme was not altogether successful, as Cosimo I abrogated both the inscription and the liberties of the people very soon after.

Arnolfo's plan contemplated a simple rectangular structure enclosing an open court. Subsequent additions have been made in the rear, until now the palace occupies more than twice its original area, without, however, in any way interfering with the first scheme. The photo-print shows the interior of the court, which is surrounded by an open arcade resting on massive octagonal columns. These were originally of brick, but were found too weak for their load, and were accordingly removed, in 1434, and the present larger ones substituted, an operation which won a great reputation for the architect, Michelozzo Michelozzi, at a time when the principles of shoring were but imperfectly understood. The columns are covered with stucco ornaments, the ground of which was once gilded. A few traces of color are found on the capitals, and in its original condition the court must have presented a very brilliant appearance. The colors now are toned down to a soft, grayish yellow. The basin of the fountain in the centre is of porphyry. The graceful little bronze figure surmounting it was made by Andrea Verocchio, for the Medici villa at Careggi, and removed hither by Duke Cosimo. The walls of the arcades are covered with half-obliterated frescoes of views of various Austrian towns, and the vault is elaborately decorated with arabesques, fairly well preserved. All of this decorative work dates from 1565, when Francis de' Medici was married to Joan of Austria, niece of Charles V, and the palace was brightened up throughout in honor of the event. In the spandrels over the arches are the armorial bearings of Florence, the lily; the people, the cross; the Parta Guelpha, the eagle; and the Medici, balls; and the combined red and white of Florence and Fiesole.

The interior of the palace is hardly less interesting than the exterior. In the upper story is the Sala dell' Orologio, a magnificent room with a ceiling in blue and gold, richly carved with Florentine lilies and cherubs' heads, and a frieze with lions and armorial bearings. The walls are diapered with golden lilies on a blue ground. At present this hall is filled with the banners presented by the Italian cities which took part in the celebration of the sixth centenary of the birth of Dante, in 1865. The effect is quite bewildering, with the varied colored silks, the curious armorial devices and the bright blue and gold decorations. This room is the first of a long series of highly decorated apartments, which are entered through a marble doorway, by Benedetto da Majano, one of the most delicate bits of Renaissance detail in Florence, and quite equal to the beautiful pulpit which the same artist executed for Santa Croce. Further on is a small chapel dedicated to St. Bernard, which in its way is a little gem. The frescoes on the walls and ceilings are considered among the best works of Ghirlandajo, and on a bright day the chapel is one blaze of deep red, brown and gold.

In the main story, immediately under the Sala dell' Orologio, is the

Sala dei Dugenta, a finely proportioned chamber with an elaborately carved and panelled ceiling, the walls hung all around with rich old tapestries. This was the council chamber of the republic, and here Savonarola received his sentence and was led out through one of the front windows on to the scaffold, at which he and two fellow monks from San Marco were burned. At the rear of the same story is an immense audience hall, known as the Sala dei Cinque Cento. It occupies the whole width and nearly the entire height of the palace. It was enlarged to its present dimensions to serve as a meeting place for the Council of Fifteen Hundred, instituted in accordance with the suggestion of Savonarola at the time when all Florence was eagerly adopting the reforms he preached so earnestly. Michael Angelo, Leonardo da Vinci, San Gallo, Baccio d'Agnolo and Il Cronaca were appointed to consult together for the design, and though Il Cronaca was the nominal director of the work, all of these artists, as well as Bandinelli and Vasari assisted in its completion and decoration. Michael Angelo and Leonardo da Vinci prepared in competition the celebrated battle cartoons for the decoration of the walls of this hall. Da Vinci was allotted the work, but it is said he spent so much time experimenting with his colors that his splendid opportunity was lost by the return of the Medici to power and the subsequent abandonment of the scheme. The present frescoes, which were added at a later date, are quite unworthy of the noble hall. The panels of the richly-carved ceiling were painted in oil by Vasari, one of his most praised works, but about which it is hard to feel very much interest. The hall was appropriated to the use of the Italian Parliament after its removal from Turin, up to 1869. A large statue of Savonarola stands at one end of the room. The place seems bare and empty now, and one cannot help wishing it might be used as an Italian Westminster Hall, to be lined with statues of the great men of Italy.

Aside from its historical associations, the Palazzo Vecchio has an interest to the architect as affording an example of one of the boldest pieces of construction which the Italians have ever attempted. Indeed, standing in front of the building and looking up at the widely-overhanging cornice and gallery, and even more widely overhanging tower, the boldness of such construction seems almost like rashness, were it not justified by the manner in which it has stood the test of six hundred years without a crack or a settlement of any kind. Yet there is hardly a city to-day where the building laws would not prohibit such an attempt, and indeed it is doubtful if many architects would dare even to undertake work like this. Surely it could not be accomplished without masons possessing a greater degree of intelligence and more conscience than is common to such as are usually to be had in our great cities, for the safety of this construction can be said to depend as much on the adhesion of the stone-work as on any balancing of thrusts or mere inert stability. By reference to the sheet of sketches it will be seen that around the top of the palace is an open gallery resting on a row of long corbels, the faces of which project four feet two inches from the face of the wall below. Figure 1 shows a section through this gallery. The wall on which it rests is seven feet six inches thick, all of solid masonry set in a very hard lime mortar. The gallery extends entirely around the four sides of the building, with no cross walls uniting it to the interior masonry. It is arched overhead, the thrust being relieved and the outer wall of the gallery tied-in by single inch-and-a-quarter iron rods, one between each of the outer arched openings. A detailed sketch of the corbel course is shown on the larger sheet. It will be noticed that the stone courses do not all run through into the wall; indeed, at the corner, the weakest part, the stones are all of rather small dimensions and there are no evidences of iron clamps having been used. Still, assuming that the masonry has set into one solid mass, this construction will be seen to be perfectly stable, as the balance of the weight is quite within the face of the lower wall. The weight of the roof, which rests entirely within the line of direct support, further aids in counteracting any tendency to yield by falling out. But when the tower is reached the construction becomes more complicated and doubtful; for, as will be seen by the section, Figure 2, the face of the tower apparently has nothing to carry it but the comparatively slight corbel-course just referred to, while at the top of the tower is another gallery, corbelled out four feet two inches, and set clear all around from the inner walls, so that the face of the upper part of the tower is eight feet four inches out from the face of the main wall of the palace. But by examining closely it will be seen that the construction here is if anything rather more secure than that of the lower gallery.

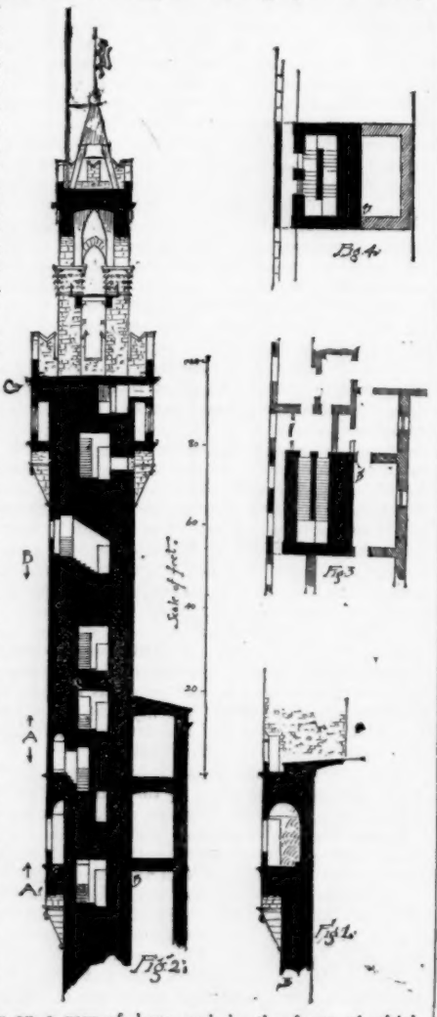


Figure 3 shows the plan of the tower on a level with the lower balcony, and Figure 4 the plan immediately above the main roof. In both of these figures the walls of the tower proper are shown solid, other masonry being cross-hatched. The rear wall is five feet six inches thick from top to bottom, extending unbroken to the ground. The side walls are about two feet six inches thick, while the front wall in the lower part is but eighteen inches through. The stairs go up through the first eighty feet of the tower entirely inside the lines of direct support, allowing a wall nearly three feet thick to be carried up plumb with the face of the building below. Consequently it will be seen that the balance of weight of the masonry, considering the walls as entirely homogeneous, is quite inside the direct supports, the enormous mass of the rear wall, which weighs approximately seven hundred tons, making the tower as stable as though it had solid bearing all around. And furthermore, though the lower corbels seem to carry the entire outer wall of the tower, in reality only a small portion of the weight thereof comes upon them, for the side walls form as it were two great corbels, the whole height of the tower, between and by which the front wall is supported at each end, so that the tower would undoubtedly remain secure if the corbels were entirely removed. A reasoning of this kind assumes that the walls were laid with more than usual care, and carefully bonded together, but no one who examines the tower in detail can doubt that this was throughout most thoroughly done. The only portion of the front wall supported directly on the corbels is then that between A and A in Figure 2, the lower part being the continuation of the main gallery about the building, and the upper a corresponding passage through the tower on the line of the main roof. At both levels the outer walls are tied back to the inner masonry by three one-and-a-half-inch iron bars, being, however, much more effectually tied in by the end walls, so that the corbels are by no means loaded up to their full capacity. It will be seen that though so much depended on the strength of the side walls, the architect did not hesitate to cut them at both these lower galleries, one wall being entirely cut away at the level shown in plan by Figure 3.

The outer portion of the tower between A and B, Figure 2, is shown solid, and, as nearly as could be ascertained, was built so. It is about seven feet six inches thick. There was no particular reason for making it thinner, as more than a third of it has a plumb bearing extending down to the ground, and the side walls are amply strong to sustain the remaining overhang. The chambers at the rear of the tower are for the works of the great clock. The walls extend down into the court and are borne by the arcades shown in the photo-print. The masonry being tied into the walls of the tower undoubtedly serve to a certain extent as an additional counterpoise.

As to the gallery around the top of the tower, the vertical weight is borne directly by the corbels, while any tendency to fall out is resisted by the masonry above, which forms the floor of the belvedere and effectually ties the whole top together. Immediately below the moulding at C, Figure 2, is an inch-and-three-quarters iron bar, passing entirely around the tower. This is undoubtedly a modern addition, as the masonry is abundantly secure without it; in fact, were there any real weakness at this point, so small a bar would count for very little.

The topmost part of the tower is borne on four stone columns, six feet in diameter. Between the arches above is hung a great bell, which is rung twice a day only. I have been on the tower repeatedly while the bell has been ringing, and have never detected the least jar or vibration in the masonry, so solidly is the whole built. A flight of stone steps winds around one of the columns, cutting up through the capital and the archings to the uppermost platform, where is suspended a second bell, which strikes the hours. The vault forming the floor of this platform is three feet six inches through at the crown.

It is doubtful if nowadays a client would be found willing to pay for a tower with walls five feet six inches thick, one hundred feet up in the air, if indeed he could be persuaded of their utility; but even in the planning of less daring buildings, the study of such construction as this is capable of developing some very suggestive ideas.

C. H. Blackall.

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OF
WETHERSFIELD, CONN.
EDIFICE REMODELED BY
JOHN C. MEAD,
ARCHITECT.

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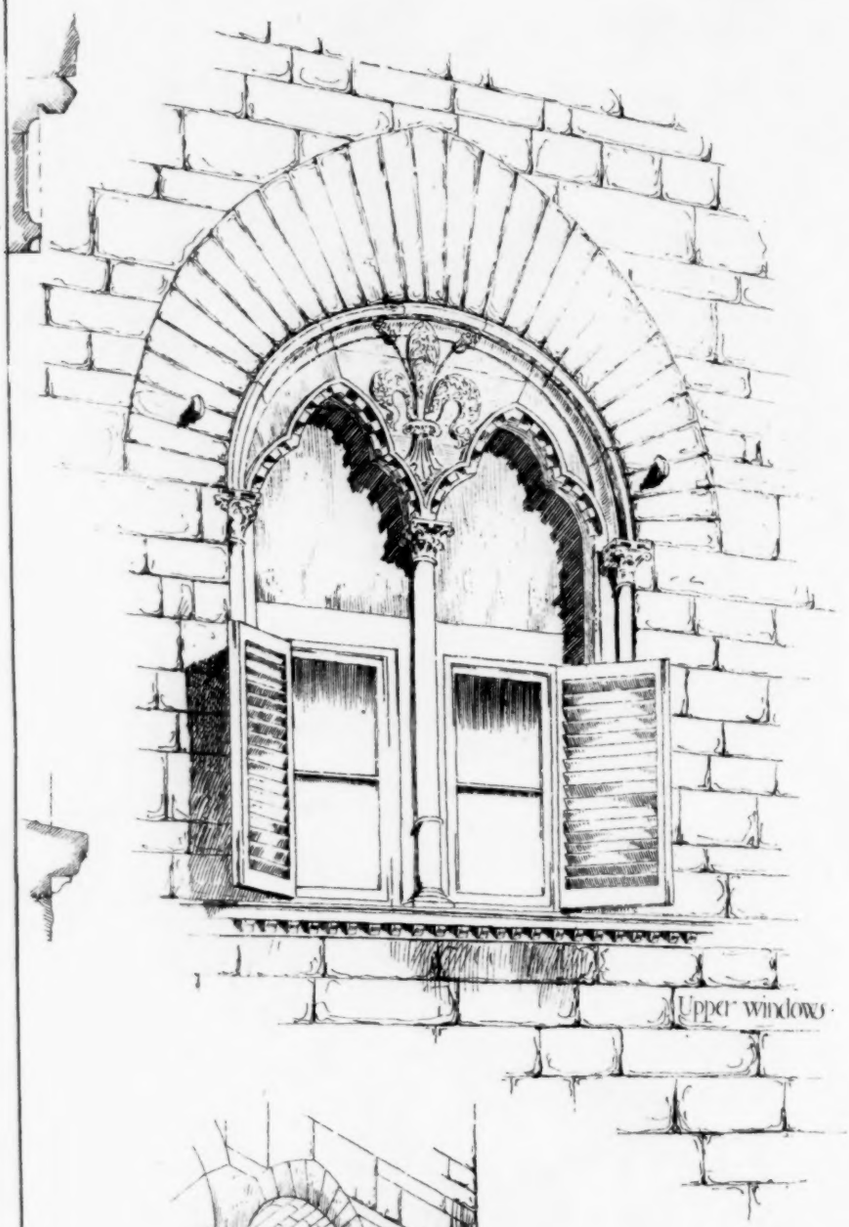
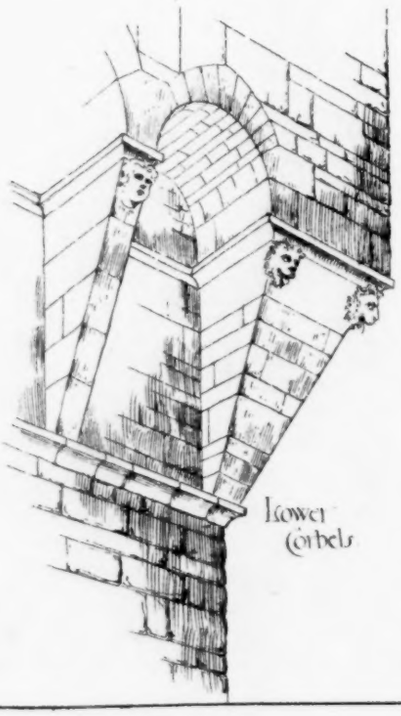
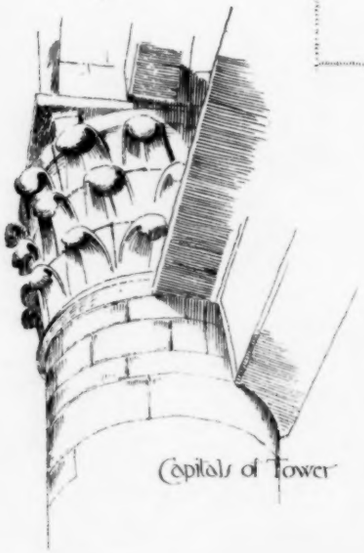


Upper windows



Lower Corbels



Capitals of Tower

Sketches from
Pala

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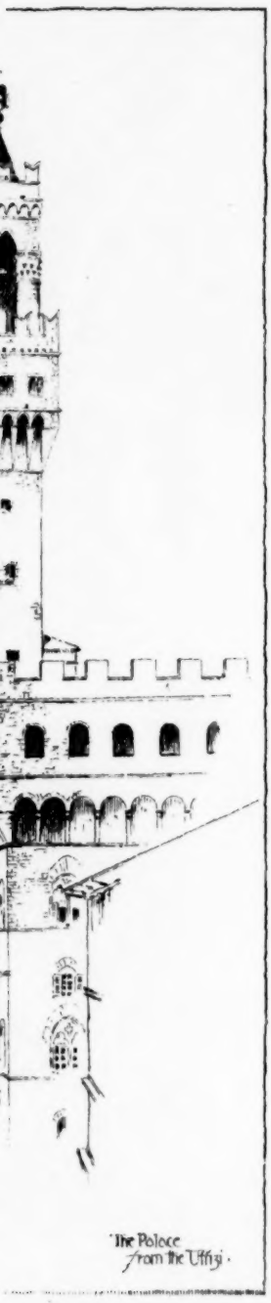

The Palace from the Uffizi.

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Palazzo Vecchio

Florence

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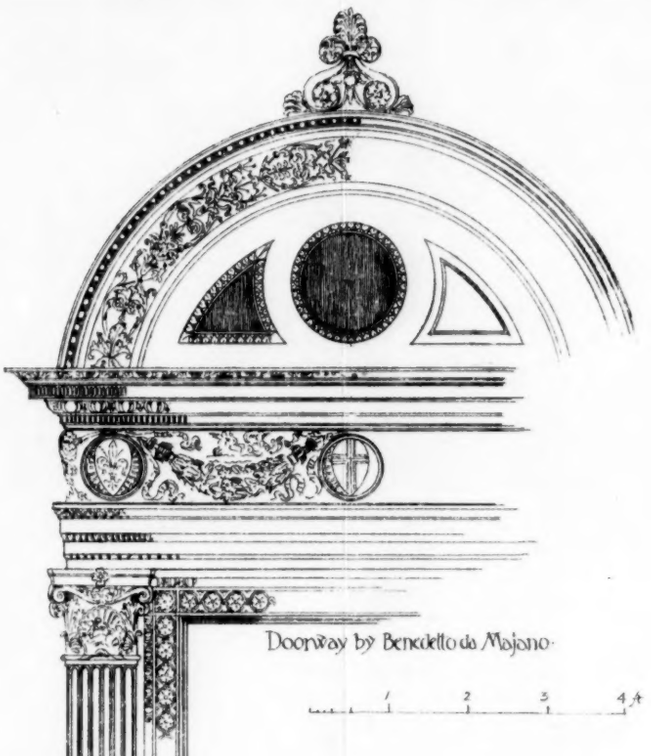
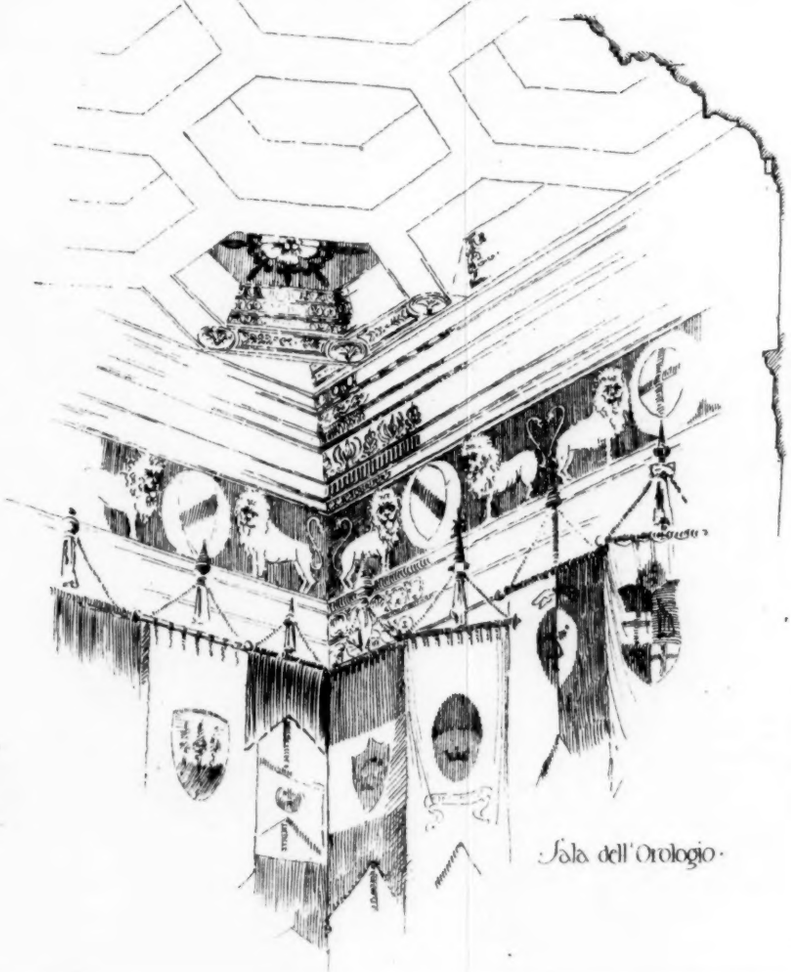


Doorway by Benedetto da Majano.

1 2 3 4 ft



Sala dell'Orologio.

The Heliotype Printing Co. 211 Tremont St. Boston.

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# Crazy and Sham Roofs.

## in and around Boston. Mass.

Back Bay.

Back Bay

West Newton St.

Brookline

Highlands

Dorchester

Tremont Street

Dorchester

Highlands

Brookline

Brookline

HELIOTYPE PRINTING CO. BOSTON.

## THE ILLUSTRATIONS.

*[Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.]*

SKETCHES FROM THE PALAZZO VECCHIO, FLORENCE, ITALY. BY MR. C. H. BLACKALL.

FOR description see article elsewhere in this issue.

CRAZY AND SHAM ROOFS IN AND ABOUT BOSTON, MASS.

INTERIOR OF THE FIRST ECCLESIASTICAL SOCIETY'S CHURCH, WETHERSFIELD, CONN. MR. JOHN C. MEAD, ARCHITECT, HARTFORD, CONN.

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## ON POINTS OF VIEW AND METHODS OF CRITICISM OF PUBLIC WORKS OF LANDSCAPE ARCHITECTURE. — I.

BROOKLINE, May 19, 1885.

Tomb in Cemetery at Meudon France
H. Boussard, Architect.

IN your issue of 18th of April (page 190) a gentleman tells of something that he has seen on one of the fields of work of the Boston Park Department, which, from his point of view, is a great wrong to the public, and an extreme illustration of professional morbid-mindedness. He asks how any other view of it is possible, implying that he is convinced that no other is possible. He adds that many persons are of his way of thinking. I think that I understand his point of view; that it is one from which I am every day taking much enjoyment of many things, and, looking at the occurrence exclusively from it, I respect and sympathize with the haste under which he has written. But I imagine myself, also, to have a moderately-clear idea of another point of view which may be taken with no less honesty and healthy simple-mindedness, and I am disposed to give some idea of it. I might have done so sooner, but since the letter appeared there has been an interregnum in the Department, and I have thought it more becoming to wait its termination.

How is it possible? It is possible that a different understanding may be had of the purpose of the work. We can agree, I presume, that it is a purpose to provide means of recreation, and that the occurrence witnessed was the destruction of means of recreation. But there are different kinds of recreation, and the destruction of means for one may be the preparation of means of another. What, then, was the special character of recreation to be had in view in this case? There is no clear, full, official statement of it in existence. We must find the answer in the general drift of the proceedings that have led the work to be undertaken. The purchase of the ground to be operated upon — the raw material — has been lately determined after a discussion of the proposition in the City Council and otherwise, publicly, that had continued sixteen years. The ground is five hundred acres in extent, and is situated at an extreme end of the city, seven miles distant from the dwellings of some of its people. Why should it have been thought better, after all this deliberation, to buy so much land in one place, and that so one-sided a place, rather than a dozen or more tracts equitably distributed, of the size, for example, of the Public Garden, all of which together would, perhaps, have cost less? There must have been some common-sense reason, or the obvious objection — an objection always having great weight, and which is generally recognized to have undue weight, in political bodies — would have made the result impossible.

The reason was, as is apparent from the course of debate, that something of a character that could not well be had on a site of the extent of the Public Garden, was, more or less clearly, felt to be wanted. Something different, also, from anything that could be seen in a long drive out of and around the city. Otherwise the argument against the scheme, that "we have a great park already, in all our beautiful suburbs," would have had more weight. Something different, also, from the best examples of landscape art in suburban villa grounds, and something yet again different from that which is enjoyed in passing through a rural neighborhood with scattered farmhouses, barns and other structures; with fields, diversified by a variety of crops and condition of tillage; with pastures, gardens, orchards and woodlands; but without striking natural features such as might be supplied by mountains.

What is this different thing? It must be something to which the topography of the site has been thought to specially lend itself, as well as something to the attainment of which a comparatively large extent of land was necessary. What, then, was to be found in the locality? First, and when the site was yet under debate, most conspicuously, there were upon it numerous homesteads, some of a villa character, some adapted to the wants of farmers and market-gardeners; with the proper following of barns, stables, ice-houses, glass-houses, poultry-yards, fences, lines of planted trees along the private boundaries, and so on. It was not because of these that the city wanted it. Imagine them out of the way; what then do we find? First, and most prominently, large woods and many small groves and separate shaws of "natural growth" (wildlings, indigenous, spontaneous, strictly natural). These have not hitherto been cleared away, because the land where they stand is much broken and made intractable by ledges and huddles of boulders, so that it could not be brought under tillage or economically built upon. Then, within and between the outworks of these eminent, forest-like spaces we find glades often sloping from them and running out with more or less undulation, into meadow spaces through and over which, when the city acquired the property, it needed little more than the removal of the artificial features to open pleasing landscapes, extending in some directions to faintly blueish, dreamy distance. In these meadowy spaces there are also a few trees, seedlings, indigenous, native, natural, but so scattered chiefly on the upper parts of the slopes as not to materially disturb the generally simple, broad, quiet character of the scenery below the rugged woodlands.

There were four comparatively elevated points where the artificial features could be so far overlooked that the elements of this quality of scenery could be best realized, and on three of these sheltered seats had been placed in order that visitors might form a better idea of the more important capabilities of the site.

Plainly it was because of these special capabilities that a site of the character and extent of that purchased was selected. To what sort of recreation, then, does the history of the undertaking thus far point, as the special purpose that should be had in view in the further prosecution of it?

It will be convenient to give a name to it, and then consider what the name signifies. Let us name it the recreation of pastoral park scenery. I use the word pastoral to avoid any association of ideas with what is seen on the common, smaller class of parks, so-called, of our cities.[1]

What, then, is the distinctive characteristic of pastoral park scenery?

I answer, first, that if what is to be seen in gardens, villa grounds or rural neighborhoods is properly to be called scenery, it is by distinction scenery of a smaller scale. That is to say, the field of pastoral scenery is less occupied by incident and the details that go to make it up are less obtrusive; are broader, simpler, more combinative and composable. It offers more undisturbed perspectives. Perspectives, consequently, of more imperceptible gradation, softer, more ethereal, ineffable; leading toward "the sublimity of mystery." Perspectives, consequently more pursuasive to an unpurposed, drifting movement of the imagination. But, especially, pastoral park scenery, in contrast with what is to be enjoyed in gardens or in ordinary lowland villa or farmstead neighborhoods, illustrates what Hammerton in his new book calls "the curious truth that very much of the impressiveness [pursuasiveness] of natural scenery depends on the degrees in which mass appears to predominate over details." ("*Landscape*," page 7.) There being in such scenery less of incident calling for close attention, such as we find in a sparkling fountain, a bright, new, bronze statue, a freshly-painted pavilion, a blue spruce, a red Japanese maple or a rose of any tint, highly developed in form by the skill of the floral gardener, it the more works upon the organization of those coming into it out of a variegated, bright and bustling city, disposed to a tranquil musing in meditative and imaginative mood; a nerve-soothing mood. Such scenery, the result of purely natural processes, may be found in many parts of our country. I have seen it and experienced the influence of it in Kentucky, Texas, Colorado and California. Such scenery, the result of art acting invitingly and suggestingly to nature (not masterfully), is often found in the old English parks; hence our term park-like.

The recreation to be obtained from such scenery is different from that to be obtained from many other types of scenery in which trees and turf and flowers are elements. Not as different as the pleasure we may take in perfumes from that we take in music, but so far different that means for obtaining it cannot be judged by the same standards of criticism without leading to misleading conclusions.

[1] "The beauty of park scenery," says Gilpin (1791) "is best displayed where hanging lawns screened with wood are connected with valleys, and where one part is continually playing in contrast with another." This is not the beauty that gives value to most of our city "parks."

I have sufficiently indicated a possible point of view from which the occurrence witnessed by your correspondent might, I think, be seen in a different aspect from that in which he presents it. Having done so, I fear that you will think that I have used quite all the space that can be allowed me. I would like very much, however, if you would let me, to take up the subject proposed in my heading, and, without reproach to your correspondent, to examine his statements, simply as a means of exhibiting the method and manner of work that, as a critic, he has casually fallen into. Then, in another letter, I should like to show how greatly this method and manner of leading and educating the public prevails, and to point to some of its established consequences.

Besides what has been considered, there were on the property the remains of a number of small orchards. Your correspondent says they were of "native growth," but he cannot mean that they were so in the sense that the word native is commonly used with reference to trees. They were transplanted, nursery-grown trees. They had been distorted by grafting, and mutilated by trimming and heading-down. In one sense they were "natural," but no more so in the sense that that term is rightly applied to matters of scenery or garden art, than pig-tails or cramped feet or bouquets of "forced" flowers. They had been set, also, in rigid, straight lines, equidistantly and rectangularly, upon surfaces of naturally meandering contours, up hill and down, and often in positions that would have been chosen for them had it been considered an object to obscure the finest views of the neighborhood. Some, for example, had been so placed as to mar the outlooks from the commanding points chosen for the shelters before named. The most interesting and picturesque landscape on the site was thus divided and obscured. Many of the trees are very old, decaying, in parts dead, and limbs were often falling from them. They were in scattered squads standing in broken order, and from the point of view from which an artist regards pastoral park scenery, though not, perhaps, from that from which he would enjoy a garden, the outlook from a suburban villa or a pleasing prospect of an agricultural neighborhood, they were generally of an aspect that he would consider dissipating to the genius of the place.

Since the land came into the possession of the city, a few laborers have been employed when they could be spared from work elsewhere in progress, in removing obstructions to drainage, making gaps in walls, tearing down buildings not worth as much as it would cost to remove them, cutting out dead and dying trees, burning rubbish and so on. With the rest they have uprooted some of the remains of the old orchards. From the point of view that I have aimed to set forth, what has been done in this last respect would seem to be in as simple and direct pursuance of the purpose which led the city with so much deliberation to purchase this particular field of scenery, as the removal of old cottages, farm-houses and flower-gardens, the object in each case being the opening to public enjoyment of elements of scenery more truly natural to the locality; scenery of a rather broad scale, pastoral and park-like.

But your correspondent looking at it exclusively from the point of view, so far as appears from his letter, of admiration of things lovely in themselves, not as elements of composition, certainly not of scenery, sees in the removal of these particular trees, which for twenty days in the year might have been hoped for some years to come to exhibit a crop of flowers, an action similar in character to the setting on fire of the most valuable treasures of a public museum of art. Taking this view, he characterizes it in terms that could not be stronger if those responsible for it were detestable barbarians — "a vandalism; a wanton outrage." He describes the feelings to which the contemplation of it gives rise, as finding expression in "objurgations loud and deep." Under their influence he makes haste to give the public particulars of the atrocity. In his haste he says, first, that all of the fruit trees have been destroyed; afterwards all, he is "sure, with the exception of a few;" lastly, that apple blossoms have been "abolished forever over the whole stricken region." I attribute these expressions to haste and excited feeling because they are not of critical accuracy. Yesterday I had the pleasure of passing through the property with the commissioners recently appointed to superintend the undertaking, and while in movement, without interruption of conversation, I counted four hundred fruit trees, most of them apple trees, just breaking into bloom. I saw other blooming trees in the distance on both sides; saw boys, also at a distance, carrying branches in blossom. I know of many fruit trees that the party did not pass near — probably there are two or three hundred more trees of conspicuous blossoms yet standing on the ground.

But the letter not only thus exhibits the haste and hasty inaccuracy of observation and of statement that is characteristic of the class I wish to consider, it manifests another trait common to it. I mean the conviction that no other view of the subject of criticism than that of the writer is possible, except to a mind morbidly insensible to natural beauty, and that has become so as the result of professional training. The writer, in this case, accounts for the unnatural propensity to destroy apple trees to which he bears witness; for instance, as "a fine professional disesteem for so common and vulgar a poor relation as these natural growths" — meaning by natural growths apple orchards. He does not recognize the possibility of any other explanation.

The expression of the common notion that a professional life particularly unfits a man for professional duties, is addressed, in this case, to a professional journal and is pointed by an unnecessary reference, as to a marked example of a professionally disordered state of mind, to a gentleman, the most valuable part of whose professional capital was acquired in a series of rovings on foot, or in saddle or boat, and otherwise under conditions favorable to an absorbing, contemplative observation of scenery, and mainly of unsophisticated natural scenery. He was occupied in this training process several years, during which he travelled in the manner stated upwards of six thousand miles. There is no reason to doubt that he was moved to such a course by an unusual sensitiveness to the charms of natural scenery, and though he has had above sixty public grounds to deal with in a "practical" way since — most of them much too small to be illustrations of scenery of any kind — and this practice may have been a little demoralizing, on the whole, in his own judgment, the effect has been to strengthen the original impulse.

With reference to the frequent presumption of public instructors that no man of healthy mind can take a different view from their own of the occurrences which move them to write, another circumstance of this special case should be noted.

There were two well-known citizens of Boston who were exclusively answerable to the public for all work done upon this public property. The only person named by your correspondent had no formal official responsibility in the matter. Your correspondent's impression to the contrary was a surmise, based on the fact that this person had been professionally employed by those in charge of the park work in question, with reference to other of the duties committed to them. Incidentally, it happens, to this other employment, they had conferred with him occasionally about the park work, and the squad of men engaged in the preliminary clearing of the ground having been drawn from his professional field, he had sometimes passed orders to it (of which orders he fully approved). But whatever he may have done in the premises was gratuitously done, was of unofficial character, was entirely known to and fully sanctioned by his principals, and there is no reason to suppose that if he had never seen the place one tree the less would have disappeared.

It follows that if your correspondent's theory were a sound one, these citizens must be afflicted with the same calamity of professional morbid-mindedness, distaste for nature and fine disdain for the "vulgar" view of a park with the person he names. The fact is, that both have had leading parts in other important movements for opening the higher enjoyments of taste to the great body of the people. Both have shown, otherwise than in public works, special interest in sylvan beauty. Both have country places, in which they have for many years been practising unprofessional landscape work and with distinguished success. One of them has been notably engaged in such work more than forty years.

Clearly, the point of view of these gentlemen is not that of your correspondent, nor is it a perverted professional point of view.

F. L. O.

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## WILLIAM MORRIS AT WORK.

XII. CONTURA ROSE. From the cloister of St. Augustino, Palermo, Sicily.

MANY years ago a number of kindred spirits, since then celebrated in the world of art, sought to redeem the decorative arts from the degraded position to which they had then fallen in England. Of this number, William Morris, Dante Gabriel Rosetti, Holman Hunt, and Burne Jones formed an important group. Their first efforts were put forth from a home in Queen's Square, Bloomsbury, London, where, until recently, the now well-known firm of Morris & Co. had a habitation.

In the world of letters, Mr. Morris, previous to this time, had

attained a high reputation as a poet by his "*Life and Death of Jason*" and "*The Earthly Paradise*," and perhaps by many people he will be remembered rather by his poems than by his later work in the decorative arts.

In everything made by Mr. Morris and his firm there is shown a conscientious endeavor to produce nothing that is not honest in construction and design, and of the highest artistic value. For instance, the furniture they make is simple in design, and but little enriched by carving. If you ask why, you will be frankly told that it is exceedingly difficult to get wood-carving executed in the right spirit. For one man among wood-carvers who can work as an artist, there are twenty that are mere wood-cutters, whose work is devoid of all feeling. No matter how good a design may be when represented on paper, when worked out in wood it looks dead.

Of very ornate furniture by Morris & Co., I saw two grand pianos, in which the effect of richness was obtained by painting. One was in a house on the Thames embankment, built from the designs of R. Norman Shaw, R. A. The case was of oak stained a dark olive-green, and the ornament which covered the whole case was painted on in metallic colors, slightly raised from the surface of the wood. The other piano was in progress in the hands of the artist, a Miss Faulkner, who has great skill in this work.

In the field of woven fabrics, in carpets, tapestries and wall-papers, in the execution of rich embroideries and stained-glass, we are much indebted to Mr. Morris for what he has done. Some distance from the smoke and dinginess of London, at Merton Abbey, a little village in Surrey, near Wimbledon, these branches of work are carried on, and here Mr. Morris spends the most of his time, designing and directing personally the whole of the work, from its first inception as a sketch, through all the minutiæ of detail, until the fabric, glass, or whatever it may be, is finished. This weaving and painting he speaks of in his admirable lectures as "the lesser arts of life." "I feel no shame," he says, "in standing before you as a professed pleader for these arts, as indeed I well may, since it is through them that I am the servant of the public, and earn my living with abundant pleasure." This work to him is in no sense the nature of a task, to be ground out so many hours a day, but a thing in which he has his heart and which is done joyfully.

The works are on the banks of a stream, the Wandle, and on the site of an old abbey, of which nothing now remains save the fragment of a ruined wall. Mr. John Ruskin and his disciples would be delighted with these "works." There are no chimneys belching forth clouds of smoke to poison the air, and no noisy whirl of steam-driven machinery; the water power of the stream suffices. Nor is the water foul with impurities from the dyeing processes; all the refuse liquid is filtered, and the stream leaves the works almost as pure as when it entered.

The different operatives work in different buildings, some built of wood, others of brick, and, although claiming no notice architecturally, yet being old and placed irregularly on the site, have as a whole a pleasing effect compared with the regulation brick factories so common in England. In one building carpets of several kinds were being made. In front of a large, upright warp, a group of six or eight little girls were closely seated, each with an allotted width of the warp to work upon, and deftly their fingers tied and cut the pieces of dyed wool which went to form the pile of this carpet, called a "Hammersmith," named so from these carpets having been first woven by Mr. Morris at his home in Hammersmith. This method of hand work on an upright warp is an ancient method, still practised in the East. "Hammersmith" carpets are specialties of Morris & Co. There are no such carpets made elsewhere, not even in the East, though the best India carpets may be compared with them in weight. In other rooms were hand-loom weavers, and on the looms rich fabrics in wool and silk, some with threads of gold interwoven. My guide led the way to another part of the building, where arras tapestries were being woven. Opening a door, we saw another upright warp, and were confronted by a stoutish gentleman. It was Mr. Morris. After a hearty shake of the hand, we soon got into conversation respecting the work in progress before us. On one side of the warp sat two young men, busy working in colored threads, from bobbins with long, sharp points. They worked on the back of the warp and could judge of the effect of their work from the reflection of it in a piece of mirror on the opposite side. Near by a large, full-size cartoon of the subject, on paper, lay on the floor. Observing that this was drawn in outline only, I asked Mr. Morris if the large cartoons were never colored. Drawing my attention to two beautifully colored drawings, at a reduced scale, framed and hanging on the walls, and which I at once recognized as having been at the Boston Foreign Exhibition in 1883, he explained that it was the better plan to work out a design in color direct, in whatever material you worked, whether in tapestry, weaving, or stained glass; it was only doing work over twice, with the almost certain loss of feeling in translating or repeating what had once been done well. This weaving of tapestry is no merely mechanical operation; it needs as much skill as in painting a picture. No one without an eye for color could attempt such a work. From time to time Mr. Morris would criticise, suggest or change some of the colors which the artists at the back of the warp wove in.

The subjects of these tapestries, each ten feet by seven feet, are named Flora and Pomona. The central figure in each was drawn by Mr. Burne Jones, who generally works in association with Mr. Morris where figure work either in fabrics or stained glass is required. There was an inscription on each, being lines from a poem by Mr. Morris.

ON THE FLORA (SPRING).

I am the handmaid of the earth;
I 'broider fair her glorious gown,
And deck her, on her days of mirth,
With many a garland of renown.

And while earth's little ones are fain
And play about the mother's hem,
I scatter every gift I gain
From sun and wind to gladden them.

ON THE POMONA (AUTUMN).

I am the ancient apple queen,
As once I was so am I now,
Forevermore a hope unseen
Between the blossom and the bough.

Ah, where's the river's vanished gold,
And where the windy graves of Troy?
Yet come I as I came of old,
From out the heart of summer's joy.

The two verses, of two lines each, are written in two lines, one at top and the other at bottom of each piece of tapestry.

In a large hall, or in a dining-room of generous dimensions, these tapestries would be admirable; as works of art they were most beautiful. It was suggested to me that a place might be found for them in America. The estimated price of each piece would be two thousand dollars, duty paid.

As we strolled from one workroom to another, I had time to notice mentally Mr. Morris's appearance. There is a kindly, benevolent expression on his face, which is perhaps helped by the patriarchal-looking grayish beard, and spectacles. Carrying a stick in his hand, which seemed a practical stave, and dressed very simply: a soft black felt hat on the head, blue cotton shirt, with collar, but no tie, he called to my mind what he had said on the subject of dress, in one of his lectures: —

"I speak of the art of dress with the more terror because civilization has settled for us males that art shall have no part in our clothes, and that we must in this matter occupy the unamiable position of critics of our betters. Rebel as I am, I bow to that decision, though I find it difficult to admit that a chimney-pot hat or a tail-coat is the embodiment of wisdom in clothes-philosophy; and sometimes, in my more sceptical moments, I puzzle myself in thinking why, when I am indoors, I should wear two coats, one with a back and no front, and the other with a front and no back; however, I have not near enough courage to suggest a rebellion against these stern sartorial laws, and after all, one can slip into and out of the queer things with great ease, and that being the case, it is far more important to me what other people wear than what I wear."

We went from the tapestry room to look at the process of dyeing wool, in a vat filled with indigo. This is a branch of the work Mr. Morris knows thoroughly; he is a practical dyer. As we watched the operator, Mr. Morris remarked; "Well, George, you've got a handsome pair of gloves on." The man's hands were stained a deep-blue. I asked if any of the dyes were injurious, and was informed that they were nearly all derived from the vegetable kingdom, and not injurious. "Of course, if not removed from the skin, a man might suffer from the pores being closed," said Mr. Morris, and then he told a story of the man whom a Pope had gilded all over, to take part in some procession, how that the gilding prevented breathing through the pores, and the man died.

I asked Mr. Morris if we should ever see him on the American side of the Atlantic. He laughed good naturedly, and remarked that he had many friends there who had asked him to visit them, and it is probable he may visit this country.

The day following my visit to the works at Merton Abbey, I went in company with one of Mr. Morris's partners to an interesting exhibition of old Persian work, a loan collection of pottery, fabrics and metal-work held at the Burlington Club, Saville Row. Some of the pieces shown were loaned by Sir Frederick Leighton, the President of the Royal Academy, Mr. H. A. Wallis, Mr. Wm. Morris and others. We had not been long in the room, which was well filled, when we met Mr. Morris again, in company with some ladies. Stick in hand, dressed just as if he had stepped in from the works, he contrasted strongly with a gentleman in the orthodox London attire, with whom, as we left, he was holding an argument in an elevated tone of voice, about the date or origin of one of the exhibits. That was my last glimpse of the author of "*The Earthly Paradise*."

First a poetical writer and then a worker in the arts which go to enrich our homes, Mr. Morris has latterly, to the regret of some, developed ideas of a socialistic kind. All who are familiar with the eloquent and earnest words he has uttered on the subject of art will know at once and understand his feelings on this subject. Like Mr. Ruskin, he has considered the relation of the worker to art, the degrading effects of merely mechanical toil, the void between the designer and the one who executes, and, being a man of intense feeling, he sees much in the present social relationships that is obstructive to the true progress of the arts.

Mr. Morris carries his theories as to art and labor into practice as far as may be, in the relations between himself and those in his service. To conclude, in the remark of a recent writer "All are in a certain sense his personal friends. He seeks that every man shall

take delight in the work of his own hands, and further that they shall each of them possess a certain daily period of leisure and relaxation. How all this will be regarded will mainly depend, of course, on our preconceived notions of what is right and what is wrong in matters political. Of one thing, however, there can be no doubt, and that is, that no personal motive or ignoble aim has prompted the new departure which has taken place in Mr. Morris's life."

## FRESH OR STALE PORTLAND CEMENT.

Greenville, N. C., May 5, 1885.

To the Editors of the American Architect: —

*Dear Sirs,* — Will you oblige with your opinion on the following points, in order to settle a dispute?

Is cement (both Portland and Rosendale) deteriorated by age, even if kept in a perfectly dry condition? If so, why? Is there a chemical change? And, at any rate, is it not preferable at all times to use fresh cement?

Respectfully, E. B. R.

[We are afraid that our opinion will not do much to settle the dispute, as each party has some reason on his side. Both Portland and Rosendale cement absorb carbonic acid and moisture even from the dryest air, and gradually become "stale" or lose their property of forming new chemical combinations, when mixed with water. Portland cement, however, especially when underburnt, very frequently contains an excess of free caustic lime, which, when the cement is used immediately after its manufacture, causes it to swell very considerably, and sometimes destroys the masonry in which it is used. To avoid this very common danger, the English architects and engineers usually open at once the bags of Portland cement sent from the manufactory to the work, and empty the contents on the floor of a room, leaving them there, exposed to the air, and perhaps turning them occasionally, for about a month before use. The dry cement, if fresh, swells under this treatment, from the hydration of the particles of caustic lime. When it has become so far air-slaked that a little of it, made into a stiff paste with water, and put into a bottle, will not expand enough to burst the bottle, it is considered to be in proper condition for making mortar. If the air-slaking is carried beyond this point, the cement powder gradually loses its power of setting, and at last becomes as inert as so much fine sand. — Eds. American Architect.]

## BOOKS ON HOTEL-BUILDING.

New York, June 10, 1885.

To the Editors of the American Architect: —

*Dear Sirs,* — Noticing in your issue of June 6 an inquiry about works on hotel construction, which you refer to your readers, I beg to say that the inquirer will find valuable information in the following books: E. Guyer, "*Das Hotelwesen der Gegenwart,*" 1874: 57 illustrations; "*Deutsches Bauhandbuch;*" Abpfist. "*Baukunde des Architektur, Part II,*" contains a chapter on hotels, illustrated with numerous plans, the text being from the pen of Baurath Böckmann in Berlin; also a monograph on the large hotel "Kaiserhof" in Berlin, by the architects Von der Hude and Heinrike. There will also shortly be issued a volume in Part IV of the large work "*Handbuch der Architektur,*" treating of hotels, illustrated with cuts and plates.

I am not sufficiently familiar with the French literature to quote titles of books, but there are undoubtedly monographs on the subject, published in Paris.

Respectfully yours, Wm. Paul Gerhard.

## ENGINEERING.

Brookline, Mass., May 29, 1885.

To the Editors of the American Architect: —

*Dear Sirs,* — In your edition of April 4 there is an article in the "Notes and Clippings" signed "*Engineering.*" Will you be kind enough to inform me as to what that refers; whether a paper published by that name, or simply the science. And if a paper, will you inform me as to where it is published? By so doing you will greatly oblige, Yours respectfully, Frank M. Morton.

["Engineering" is the leading weekly journal in the English language devoted to the interests of civil and mechanical engineers. It is published at 35-36 Bedford Street, Strand, London, W. C. — Eds. American Architect.]

## A CORRECTION.

Newton, Mass., June 13, 1885.

To the Editors of the American Architect: —

*Dear Sirs,* — The font on page 282 of the *American Architect* of June 13 is from St. Martin's Church in Canterbury and not in the Cathedral. H. P. James.

## NOTES AND CLIPPINGS.

Roman Tenement-Houses. — The Romans had to contend with the evils of enormous tenement-houses two thousand years ago. Gibbon mentions that Augustus and Nero repeatedly enacted that the height of dwellings within the walls of Rome should not exceed seventy feet from the ground. The space within the Roman walls was necessarily circumscribed. Much of this was occupied by the rich patricians and senators, with their palaces and gardens, so that the body of the Roman people were crowded into high tenements, and the different floors and apartments were divided among several families of plebeians, who suffered consequently in health and comfort. Juvenal, recognizing the unfortunate condition of the poor in this respect, advised them to leave the city and seek homes in the small towns. —*Exchange.*

Mortar. — Mortar for sewer works in all cases should be capable of setting in water. Portland cement and lias limes make good hydraulic mortar. The proportions of cement, or of lime to sand, should not exceed two and a half of clean, sharp sand to one by measure of ground Portland cement or lias lime. If clean furnace ashes or slag are available, there may be two of sand and one-half of ashes or slag, the whole to be mixed in a revolving pan, each pan-full to have twenty minutes' grinding. When mortar is used with bricks, the beds and joints should be spread thick and full over the entire area of both bed and joint, leaving, when pressed into place, a bed and joint never less than one-eighth of an inch in thickness of mortar. In four cubic yards of completed brickwork there should not be less than one cubic yard of mortar incorporated. In making mortar or concrete, it will be of the utmost importance to use clean materials and to preserve them clean; the water used for wetting bricks and for mixing concrete and mortar must be free from silt. Concrete and mortar should also be used on clean surfaces. — *Sir R. Rawlinson, C. E.*

Etymology of the Word "Dome." — It is doubtful how the word "dome" came to be applied to a cupola, or vaulted roof. A cathedral is in Italian *duomo,* in German *dom,* and a dome may be so called because it was the ornament of a cathedral church. A church in general was called *domus Dei,* the house of God, and probably the name was given to a cathedral church *par excellence.* On the other hand, we find that the Greek *doma* was used for a roof. The word *domus* is commonly derived from the Greek *demo,* to build, but this, I believe, is putting the cart before the horse. We have the most natural derivation for the word signifying a dwelling in the notion of a hearth or fireplace. The Finnish *sawu,* signifying smoke, is applied in the second place to a house, household, family living in a house, and in like manner the Welsh *mwg,* smoke, is identical with Breton *moug* or *mog,* a fire, hearth, household, house, while a derivative *moged* is in the latter dialect used for smoke. This mode of expression is almost universal in a rude state of society. "The census includes those provinces beyond the frontiers dependent on the empire which are numbered by fireplaces or houses."— "Population of China," Amer. Orient. Soc. Now the Polish *dym* (radically identical with *thumos* and *fumus*) is rendered smoke, cottage, house, while the form *dom* is also used in the latter sense. Bohemian *dym,* smoke; *dum,* a house; where the two senses are distinguished, as in Breton, by the modification *moug* and *moged,* Lithuanian *dumas,* smoke. —*Hensleigh Wedgewood, M. A.*

An Architect's Suit decided. — In the Second District Court, Judge Henry has filed a written opinion in the case of Charles D. Marvin against Dr. Clarence W. Butler and wife. The case was tried in March last. The facts were, that the defendants employed the plaintiff, a New York architect, to prepare plans and specifications for a dwelling-house, to be erected on Fullerton Avenue, Montclair. After the plans and specifications were drawn and the contractor's bids submitted, the defendants refused to accept the plans, and thereupon the architect demanded the usual commission for his services, on which, being refused, he brought suit. The defence interposed by the defendants was two-fold: First, that the plans called for a building which, if erected, would project beyond the defendants' lot a few inches; second, that the lowest bid of any contractor exceeded the stated amount the defendants wished to spend on the building. In reply, the plaintiff proved that the measurements of the lot were furnished by Dr. Butler, and therefore the error had been occasioned by the defendant's mistake, and that the changes in the original plans, made at the request of the defendants, had occasioned the increased cost. Judge Henry, after hearing A. E. Van Giesen for the defendants, and E. A. Rayner for the plaintiff, in a lengthy opinion reviewing both the law and the facts, holds that the plaintiff is entitled to recover a reasonable compensation for his services in preparing the plans, etc., and gave judgment in his favor. —*Building.*

A New Process for hardening Plaster. — A new process for rendering plaster very hard, and capable of being substituted for wood in flooring has been brought out by M. Juhle. Plaster has this advantage over cements, and even over wood, that it increases rather than diminishes in bulk on being applied to structures; but it fails in hardness and surface resistance. To overcome this difficulty M. Juhle mixes six parts of good plaster with one part of rich lime, recently slaked and finely sifted. This mixture is to be used like ordinary plaster, and the object made from it when it is very dry is caused to imbibe a solution of a sulphate which has a base precipitable by lime, and this precipitate insoluble. Such are the sulphates of zinc or iron. The theory of the process is as follows: The lime contained in the pores of the plaster decomposes the sulphate, with production of two insoluble bodies, to wit, sulphate of lime and oxide, which fill the pores of the object submitted to the treatment in question. With sulphate of zinc the object keeps of a white color, but with sulphate of iron the object at first greenish, takes on drying and with the lapse of time the color of the sesquioxide of iron. With sulphate of iron the hardest surfaces are obtained, the resistance to rupture being twenty times greater than with ordinary plaster. To obtain the maximum hardness and tenacity it is necessary that the object should first be very dry, and steeped in a solution which is practically saturated. The first immersion of the object in the solution ought not to last over two hours, as a too long immersion at first is apt to render the surface friable. On drying the plaster object afresh after the first immersion, there is no further fear of its becoming friable. If the proportion of slaked lime is too great, the surface is apt to take a very hard marble-like skin, which prevents the hardening of the inner portions of the object. The proportion of one of lime to six of plaster as stated above has given the best results. Plaques made in this way can be browned by rubbing them with linseed oil and litharge, and glazed on the surface with hard copal varnish. A beautiful glassy flooring like polished oak can in this way be prepared. —*Engineering.*

# BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

*[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]*

# BUILDING PATENTS.

*[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]*

318,946. DEVICE FOR REMOVING WINDOW-SASH FROM FRAMES. — John Bowbin and Michael H. Croker, Chicago, Ill.

318,956. SHINGLE-SAWING MACHINE.—Frank Challoner, Omro, Wis.

318,957. ART OF RECUTTING FILES. — Luke Chapman, Collinsville, Conn.

318,962. STONE-CUTTING MACHINE. — John Crump and Richard Brereton, Philadelphia, Pa.

318,984. BEVEL FOR DRAUGHTSMAN OR ARTIFICERS.—Jasper J. Hedges, Athol, Mass.

318,988. WINDOW-SCREEN.—Frank and Anton Hubka, Chicago, Ill.

318,994. REAMER. — Everett L. Lake, Syracuse, N. Y.

318,998. SASH-FASTENER. — Jacob F. Maugans, Bellefontaine, O.

319,012. COMBINED SQUARE, MITER AND BEVEL. —John Muller, Kansas City, Mo.

319,027. METHOD OF MAKING TWISTED BORING-TOOLS. —Chas. Robin, Chester, Conn.

319,039. BENCH-PLANE. — Justus A. Traut, New Britain, Conn.

319,053. ELECTRIC BURGLAR-ALARM. — Joseph Barkheimer, Des Moines, Iowa.

319,058. LOCK.—Edward W. Brettell, Newark, N. J.

319,062. HOT-AIR FURNACE. — Stephen T. Bryce, Dayton, O.

319,064. HEAT-REGULATOR. — Lyman C. Byce and Alzina Dias, Petaluma, Cal.

319,074. CHIMNEY-TOP. — Geo. Crompton, Worcester, Mass.

319,086. DOOR-CHECK.—Peter Forg, Boston, Mass.

319,087. BLIND-SLAT FASTENING. — Augustus M. Freeman, Ocean Grove, N. J.

319,099. ELEVATOR. — William A. Koneman, Chicago, Ill.

319,104. WINDOW.—Anton Matuska, Chicago, Ill.

319,113. DOOR-HANGER.—Silas H. Nye, Union City, Mich.

319,121. WEATHER-STRIP. — John W. Power, Carthage, Ind.

319,159. RATCHET-BRACE. — Edgar H. Whitney, Winchendon, Mass.

319,162. WEATHER-STRIP. — George Zitzman, Bennett, Pa.

319,168. WINDOW-SCREEN. — Jas. W. Bachus, New Windsor, Ill.

319,172. FIREPLACE HEATER. — Thos. J. Bartlett, Colorado, Tex.

319,205. SHUTTER-WORKER.—Alvin H. Dodd, Hudson, N. Y.

319,207. SHUTTER AND DOOR BOLT. — Andrew J. Doolittle, Hamden, Conn.

319,209. SHUTTER-FASTENER. — Tiberias Dougherty, Philadelphia, Pa.

319,215. SPRING-CALIPERS. — Charles P. Fay, Springfield, Mass.

319,228. METAL ROOFING. — Benedict Goodman, Auburn, Ind.

319,230–231. RADIATOR.—John Gormly, Provo City, Utah.

319,247. ROLLED WOOD-SCREW.—Hayward A. Harvey, Orange, N. J.

319,252. WINDOW-GUARD. — William Hinze, Newark, N. J.

319,265. WINDOW FRAME AND SASH. — John E. Jones, New York, N. Y.

319,275. SASH-HOLDER.—Cris Lee, Paducah, Ky.

319,288. FASTENING FOR MEETING-RAILS OF SASHES.—Thomas L. McKeen, Easton, Pa.

319,289. PIPE-JOINT.—Hugh McKenna and George D. Bulmer, Penn, Pa.

319,292. AUTOMATIC ELEVATOR-GATE. — John G. Meisner, Chicago, Ill.

319,324. SASH-FASTENER. — Thos. B. Ross, Evansville, Ind.

319,336. WATER-CLOSET.—Samuel F. Sniffen, New York, N. Y.

319,370. FIRE-ESCAPE. — Charles P. Willson, Summit Point, W. Va.

319,374. REFRIGERATOR BUILDING AND APPARATUS.—Thomas R. Wingrove, Baltimore, Md.

319,379. SASH-BALANCE. — Geo. W. Arnold, Knoxville, Ill.

319,390. PROCESS OF MAKING CONCRETE WALLS, BLOCKS, ETC.—Thos. W. Carrico, San Antonio, Tex.

319,414. SASH-FASTENER.— John Huth, Canton, O.

319,422. WINDOW-SCREEN. — Josiah K. Proctor, Philadelphia, Pa.

319,427. SASH-FASTENER.—Wm. J. Slyder, Troy, O.

# SUMMARY OF THE WEEK.

### Baltimore.

DWELLINGS.—John Gill, Jr., is to have built 6 three-st'y and basement brick and stone dwells., on North St., near Chase St., on lot 40′ x 89′ 5″, to cost $12,000; from designs by J. A. & W. T. Wilson, architects.

BUILDING PERMITS. — Since our last report twenty-one permits have been granted, the more important of which are the following: —

E. Rosenfeld, three-st'y brick warehouse, 25′ x 104′, n w cor. Sharp and Perry Sts.

Jos. L. Amos, 2 three-st'y brick buildings, e s Madison St., s of North Ave.

Wm. M. Warfield, 6 two-st'y brick buildings, commencing n w cor. Gilmor and McHenry Sts.; and 7 two-st'y brick buildings, n s McHenry, w of Gilmor St.

Jacob Seeger Estate, 4 three-st'y brick buildings, e s Pennsylvania Ave., s of Union St., and 5 two-st'y buildings, n s Pear Alley, s of Union St.

Hugh Ward, three-st'y brick building, e s McKim St., between Eager and Chase Sts.

### Brooklyn.

BUILDING PERMITS. — *Lorimer St., Nos.* 140 *and* 142, 2 three-st'y frame tenements, tin roofs; cost, each, $4,000; owner, Wm. Ernst, Stagg St., cor. Lorimer St.; architect, Th. Engelhardt.

*Grove St., Nos.* 22, 24, 26 *and* 28, between Broadway and Bushwick Ave., 5 three-st'y frame tenements, tin roofs; cost, $4,000; owner, David Lauer, 1534 Fulton St.; architect, A. Hill; builders, Weeks & Lauer.

*Vernon Ave.*, n s, 345′ e Marcy Ave., 3 two-st'y basement and attic brown-stone dwells., tin roofs; cost, each, $5,000; owner, Walter S. Davis, Stone Ave. and Truxton St.; architect, S. Peden, Jr.

*Putnam Ave.*, s s, 340′ w Nostrand Ave., 6 three-st'y brown-stone dwells., mansard, slate and tin roofs; cost, each, $5,500; owner, architect and builder, T. W. Swimm, 358 Putnam Ave.

*Jefferson St.*, s s, 190′ w Throop Ave., 2 two-st'y brown-stone dwells., tin roofs; cost, each, $5,000; owner and builder, Wm. Reynolds; architect, I. D. Reynolds.

*Court St.*, w s, 59′ n Third Pl., three-st'y brick store and dwell., tin roof; cost, $5,600; owner, Dr. Dugan, South Fourth St., cor. Fifth St.; builders, M. Smith and Gilmor & Trevor.

*Manhattan Ave.*, w s, 75′ s Greene St., four-st'y brick store and tenement, tin roof; cost, $10,000; owner, I. Walsh, 471 Manhattan Ave.; architect, H. Vollweiler; builder, J. D. Eggers.

*Manhattan Ave.*, n e cor. Calyer St., 4 four-st'y brick stores and tenements, tin roofs; cost, total, $34,000; owner and builder, Henry Bogel, Calyer St., n w cor. Eckford St.; architect, H. Vollweiler.

*Prospect Pl.*, n s, 150′ w Vanderbilt Ave., 4 three-st'y brown-stone dwells., tin roofs; cost, each, $7,000; owner, Wm. C. Vosburgh, 116 Clermont Ave.; architects, Eastman & Daus; builders, Peter Kelly and W. Schepper.

*Hancock St., Nos.* 176, 178 *and* 180, 300′ e Nostrand Ave., 3 three-st'y brown-stone dwells., tin roofs; cost, each, about $10,000; owner, Geo. G. Halleck, 393 Gates Ave., estate of G. Halleck, deceased, 401 Grand St., New York, and Alfred T. Lenard, 114 Madison Ave., New York; architect, J. B. Snook.

*Bergen St.*, s s, 100′ e Nostrand Ave., 5 two-st'y brown-stone dwells., tin roofs; cost, each, $5,500; owner, Martin Joost, 117 Hancock St.; architect, M. J. Morrill; contractor, P. Brady.

*Metropolitan Ave., No.* 55, n s, 25′ w Olive St., three-st'y frame (brick-filled) tenement, tin roof; cost, $4,300; owner, Augustine Straub, 53 Metropolitan Ave.; architect, Th. Engelhardt; builders, P. Kunzweiler and C. Buchheit.

*De Kalb Ave.*, s s, 50′ e Evergreen Ave., 2 three-st'y frame (brick-filled) stores and tenements, tin roofs; cost, each, $3,500; owner, architect and builder, Henry Loeffler, 189 Stockton St.

*Concord St.*, n s, 174′ 8″ e Gold St., one-st'y mission day school, etc., slate roof; cost, $7,500; owner, the Industrial School Association; architects, Parfitt Bros.; builders, Morris & Selover.

*Park Ave.*, s e cor. Sandford St., one-st'y frame car-stable, gravel roof; cost, $13,000; owner, Nostrand Ave. R. R. Co.; architect, J. H. Hough; builders, S. F. Bartlett and J. B. Woodruff.

*Nostraad Ave.*, s w cor. Park Ave., two-st'y frame car-house, gravel roof; cost, $10,000; owner, etc., same as last.

*Fulton St., No.* 1890, three-st'y frame (brick-filled) store and tenement, tin roof; cost, $4,000; owner, Benjamin Gramer, 95 Sumpter St.; architect, E. Schrampt; builders, J. Hertlin and C. Baur.

*Newell St.*, w s, 95′ n Norman Ave., three-st'y frame (brick-filled) tenement, gravel roof; cost, $4,500; owner, William Maywood, 212 Eckford St.; architect, Fr. Weber.

*State St.*, n w cor. Boerum Pl., one-st'y brick carhouse and stable, gravel roof; cost, $50,000; owner, Atlantic Ave. R. R. Co., Third Ave., cor. Atlantic Ave.; architects, W. H. Hazard, Son & Co.

ALTERATIONS. — *Tompkins Ave.*, n w cor. Quincy St., two-st'y brick extension, tin roof; cost, $3,000; owner, E. H. Eden, on premises; architect, I. D. Reynolds; builder, W. Zang.

*Flatbush Ave.*, cor. Park Pl. and Carlton Ave., add three stories, mansard, slate and tin roof; also, four-st'y extension, tin roof; alteration for store and tenement; cost, $12,000; owner, H. W. Blattmacher, 378 Flatbush Ave.; architect, C. F. Eisenach; builders, J. M. Brown and P. S. Cootey.

*Furman St., Nos.* 147 *and* 149, raised three feet, new fronts, prepared for occupancy; cost, $12,000; owners, Lorin Palmer and G. L. Ford, 142 Columbia Heights and 97 Clark St.; architects, John Cox & Co.

*South Ninth St.*, s s, 100′ w Third St., five-st'y brick extension, tin roof, front taken down, and building extended five feet forward, front to be of brown-stone; cost, $12,000; owner, Joseph Applegate, Bedford Ave.; architect, E. F. Gaylor; builders, Thomas Gibbons and Jenkins & Gillies.

*Clinton Ave., No.* 66, one-st'y brick extension, tin roof, interior alterations; cost, $5,000; owner, Steven Cox; architect, A. Hill; builder, B. Linikin.

*Atlantic Ave., Nos.* 57, 59 *and* 61, repair damage by fire; cost, $4,000; owner, Henry Lindenberg, 62 Atlantic Ave.; builder, E. Smith.

### Chicago.

BUILDING PERMITS. — Cobb & Pierpont, 2 three-st'y dwells., 409 Superior St.; cost, $14,000; architects, Cobb & Frost.

D. W. Ryan, two-st'y addition, 17 to 25 Coventry St.; cost, $2,500.

H. Schwahn, 2 three-st'y dwells., 3231 to 3233 South Park Ave.; cost, $10,000; architects, Furst & Rudolph.

R. Latholz, five-st'y warehouse, 184 to 186 Michigan Ave.; cost, $25,000; architect, E. Baumann.

Mrs. J. Fischer, two-st'y addition, 148 Hastings St.; cost, $2,500.

D. Russell, one-st'y addition, 51 North Desplaines St.; cost, $2,600.

F. Mange, three-st'y store and dwell., 544 Blue Island Ave.; cost, $12,000; architect, P. W. Ruehl.

M. Schmidt, 3 three-st'y stores and dwells., 2252 to 2256 State St.; cost. $30,000.

M. Huhs, two-st'y store and dwell., 208 North Ave.; cost, $4,000; architect, A. Boos.

W. Watson, two-st'y barn, 2640 Prairie Ave.; cost, $3,000; architects, Treat & Foltz.

J. F. Smith, 2 three-st'y stores and dwells., 12 to 16 South Halsted St.; cost, $15,000; architect, S. V. Shipman.

D. McCarthy, 3 three-st'y stores and dwells., 879 to 881 West Madison St.; cost, $11,000; architect, W. Strippelman.

J. C. Krasa, three-st'y dwell., 218 Maxwell St.; cost, $4,600; architect, A. Soula.

F. M. Mory, three-st'y dwell., 100 Bunker St.; cost, $4,200.

N. W. Leffer, three-st'y store and dwell., 858 West Lake St.; cost, $6,000; architect, E. Baumann.

J. C. Clement, one-st'y store and dwell., Western Ave and Monroe St.; cost, $6,000; architect, F. Baumann.

G. Weertz, 2 three-st'y stores and dwells., 900 to 902 Halsted St.; cost, $12,000; architect, H. Randolph.

H. Brause, three-st'y store and dwell., 575 Twelfth St.; cost, $5,000; architect, E. Sendilbach.

C. Wildner, three-st'y store and dwell., 418 Larrabee St.; cost, $8,000; architect, C. F. Berlin.

J. Schnoor, three-st'y dwell., 280 Fremont St.; cost, $6,000.

C. G. Bode, 4 three-st'y stores and dwells., 500 to 506 West Twelfth St.; cost. $40,000.

E. Peterson, two-st'y dwell., 814 Maplewood Ave.; cost, $4,700; architect, C. C. Fitch.

W. Staden, two-st'y flats, 210 West Huron St.; cost, $2,500.

B. B. Rockford, two-st'y dwell., 409 Centre St.; cost, $4,000.

Dr. A. H. Cooke, 2 two-st'y dwells., 334 Dearborn Ave.; cost, $8,000.

J. Carden, six-st'y malt house, 16 to 22 Cherry St.; cost, $30,000; architect, F. W. Wolf.

Mrs. C. Libke, three-st'y flats, 99 West Erie St.; cost, $6,500; architects, Burling & Whitehouse.

Mrs. M. Mahoney, three-st'y flats, 64 Whiting St.; cost, $8,000.

J. Telfer, two-st'y dwell., 327 Austin Ave.; cost, $3,500.

Church of the Redeemer, church, 251 to 255 Warren Ave.; cost, $40,000.

J. Heffy, three-st'y flats, 161 West Adams St.; cost, $6,000; architect, J. Hanlan.

H. O. Sullivan, four-st'y store and flats, 299 West Twelfth St.; cost, $5,000; architect, P. W. Ruehl.

T. Scholzen, four-st'y store and flats, 301 West Twelfth St.; cost, $5,000; architect, P. W. Ruehl.

M. M. Haltz, 3 two-st'y flats, 291 to 295 Robey St.; cost, $10,000.

Fortune Bros., four-st'y malt house; cost, $40,000.

C. Crede, addition, 169 to 171 Third Ave.; cost, $6,000.

O. Osmus, two-st'y dwell., 940 Twelfth St.; cost, $2,800.

G. Hormuth, two-st'y dwell., 942 Twelfth St.; cost, $3,300.

Mrs. M. B. Lincoln, three-st'y flats, 349 to 351 Van Buren St.; cost, $10,000; architect, J. S. Lincoln.

E. J. Lehman, two-st'y store, 198 to 200 State St.; cost, $15,000; architects, Treat & Foltz.

Mrs. D. Gilikson, two-st'y dwell., 304 Morgan St.; cost, $2,500.

H. & A. Keep, 2 six-st'y stores, 257 to 263 State St.; cost, $100,000; architect, T. V. Wadskier.

S. H. Frederich, two-st'y dwell., 1076 Leavitt St.; cost, $4,000.

F. Sweetser, four-st'y store and dwell., 175 to 177 Halsted St.; cost, $18,000; architect, J. M. Van Osdel.

Mrs. A. M. Holton, 3 two-st'y dwells., 304 to 308 Warren Ave.; cost, $14,000.

C. C. Nelson, three-st'y flats, 287 West Ohio St.; cost, $4,000.

J. M. Love, 3 two-st'y dwells.; cost, $10,500; architects, Wheelock & Clay.

J. M. Love, 5 two-st'y dwells., 3258 to 3266 Vernon Ave.; cost, $17,500; architects, Wheelock & Clay.

E. Ender, two-st'y dwell., 90 Lincoln Ave.; cost, $4,500.

N. R. Warwick, one-st'y addition, 150 to 154 Fifth Ave.; cost. $4,000.

F. Stantz, 2 two-st'y dwells., 408 to 410 Twenty-seventh St.; cost, $3,500.

J. Jenson, 4 one-st'y cottages, North Leavitt St.; cost, $4,500.

T. C. Duncan, two-st'y dwell., 590 Adams St.; cost, $7,000.

J. Hirsch, two-st'y dwell., 3430 Michigan Ave., cost, $20,000; architect, C. C. Miller.

H. B. Mason, three-st'y dwell., 29 Delaware St.; cost, $10,000; architects, Treat & Foltz.

H. L. Brown, two-st'y dwell., 301 Warren Ave.; cost, $5,000; architect, W. E. Carroll.

### Cincinnati.

F. Doepke, one-and-one-half-st'y frame building, 391 East Third St.; cost, $3,900.

Hy. Ballman, two-st'y brick building, Baum and Observatory Ave.; cost, $3,300.

F. Schuler, two-st'y brick building, Lincoln Ave.; cost, $5,500.

C. Dimeyer, three-st'y brick building, 366 McIntosh St.; cost, $3,000.

Wm. Northside, two-st'y brick building, Harrison and Fairmount Pike; cost, $4,100.

Wm. Menz, two-st'y brick building, Colman and Bank Sts.; cost, $3,300.

Henry Fisher, two-st'y brick building, Euclid and Boone Sts; cost, $3,000.

F. Leutz, three-st'y brick building, Central Ave. and Bank St.; cost, $4,200.

R. Aukinson, two-st'y frame building, Wheeler and Warmer Sts.; cost, $2,000.

Total, $30,200.

Repairs, $3,900.

Total amount to date, $1,162,710.

Permits to date, 557.

**Kansas City, Mo.**

BUILDING PERMITS.—Wm. Sitzler, brick business block, 1310 Walnut St.; cost, $4,000.

C. H. Price & Co., four-st'y stone and brick addition to business block, 40′ x 75′, King St.; cost, $13,000.

John Patton, five frame houses, on lots 25, 26, 27, 28 and 29 in Hyan and Scott's addition, cost, $5,000.

H. W. Ide, three-st'y brick business block, 301 and 303 West Ninth St.; cost, $10,000.

W. N. Walker, brick business block, East Eighteenth St.; cost, $3,500.

Gilie & Van Peyma, brick business block, Union Ave.; cost, $4,000.

John Schuarzel, four-and-one-half-st'y brick business block and hotel, southwest cor. of Missouri and Grand Aves.; cost, $45,000.

Joseph Street, four-st'y addition to hotel, 1045 and 1047 St. Louis Ave.; cost, $35,000.

Irving Queal, brick house, Tracy Ave.; cost, $3,500.

G. G. Rounds, brick house, West Fourteenth St.; cost, $12,000.

**Minneapolis, Minn.**

BUILDING PERMITS.—C. A. Smith, frame dwell. and barn, West Twenty-fourth St. and South Emerson Ave.; cost, $5,500.

Eli Torrence, two-st'y wooden dwell. and barn, Park Ave. and Twenty-fifth St., s; cost, $10,800.

Alfred E. Merrill, two-st'y brick dwell., Harmon Pl., bet. Willow and Maple Sts.; cost, $10,000.

Dennis Firm, one-and-one-half-st'y wooden dwell., Third St., bet. Seventh and Eighth Aves., n; cost, $8,000.

Alex. Barnes, two-st'y wooden dwell., Lowell Ave., bet. Sixth and Eighth Aves., n; cost, $6,000.

Immanuel Baptist Church, two-st'y red brick church, Bloomington Ave. and Twenty-third St.; cost, $25,000.

T. B. Tafton, two-st'y brick veneered dwell. and store, Twenty-fifth St., cor. Bloomington St.; cost, $4,000.

Miss A. E. Hammond, two-st'y dwell., Stevens Ave., bet. Twenty-fourth and Twenty-fifth Sts.; cost, $4,500.

M. E. Lawson, two-st'y dwell., cor. Grand Ave. and Twenty-seventh St., s; cost, $3,000.

H. H. Barton, 3 two-st'y dwells., South Colfax Ave. and West Twenty-eighth St.; cost, $6,250.

Wm. Regan, two-st'y dwell., Ridgewood Ave., w of Lindley; cost, $6,300.

Mrs. M. A. Durtoch, brick store, 223 South Washington St.; cost, $8,000.

N. G. Merriam, brick store, northwest cor. Washington and Second Ave., n, cost, $8,000.

S. G. Daniels, brick tenement, Twentieth St., bet. Third and Fourth Aves., n; cost, $6,500.

**New York.**

BUILDING PERMITS.—*Tenth Ave.*, e s, 80′ 4″ n Forty-ninth St., five-st'y brick tenement and store, tin roof; cost, $18,000; owner, Charles Hamberger, 71 East Third St.; architect, Wm. Graul.

*Columbia St., No.* 4, four-st'y brick tenement, tin roof; cost, $13,000; owner, Jas. L. Barclay, 14 East Forty-eighth St.; architect, James Cody; builder, Wm. W. Owens.

*Cherry St., No.* 136, five-st'y brick tenement and store, tin roof; cost, $18,000; owner, Henry Browning, 1453 Ave. A; architects, A. B. Ogden & Son.

*Hester St., No.* 3, six-st'y brick tenement, tin roof; cost, $15,000; owner, Estate of I. C. Delaplaine, New York Life Insurance and Trust Co., trustee; architect, M. C. Merritt.

*Mercer St., Nos.* 15 *and* 17, six-st'y brick (iron-front) store, tin roof; cost, $55,000; owner, Samuel Inslee, 410 Broadway; architect, Samuel A. Warner.

*Tenth St.*, s s, 114′ w Washington St., five-st'y brick stable, asphalt roof; cost, $45,000; owners, Beadleston & Woerz, 291 West Tenth St.; architects, A. Pfund & Son.

*Baxter St., No.* 34, *and Worth St., No.* 161, five-st'y brick tenement and stores, tin roofs; cost, $15,000; owners, Jacob Cohen and Louis Levy, cor. Baxter and Walker Sts.; architect, Frederick Ebeling.

*Chambers St., Nos.* 49 *and* 51, and *Reade St., Nos.* 25 *and* 27, seven-st'y brick, stone and iron bank office-building, brick and concrete roof; cost, $500,000; owner, Emigrant Industrial Savings Bank, 57 Chambers St.; architects, W. H. Hume and Little & O'Connor; mason, Isaac A. Hopper.

*Greenwich St.*, s e cor. Watts St., six-st'y brick and stone store, tin roof; owner, Henry Welsh, 123 Waverly Pl.; architect, Geo. W. da Cunha.

*Reade St.*, n w cor. Hudson St., six-st'y brick warehouse, tin roof; cost, $37,600; owner, Thomas Patten, 226 Greenwich St.; architect, Geo. Martin Huss; builders, C. Callahan and Grissler & Fausel.

*Rivington St., No.* 245, five-st'y brick tenement and store, tin roof; cost, $18,000; owner, Rudolph Bohm, 270 Grand St.; architect, Wm. Graul.

*Rivington St., Nos.* 247 *and* 249, five-st'y brick tenement and store, tin roof; cost, $12,000; owner and architect, same as last.

*Whitehall St.*, s e cor. Bridge St., five-st'y brick tenement and store, tin roof; cost, $30,200; owner, Frederick Knief, n e cor. Beaver and New Sts.; architect, P. Henry Gilvarry; builders, E. Sorensen and Grissler & Fausel.

*Rivington St.*, n e cor. Allen St., two-st'y brick dwell. and store, tin roof; cost, $3,000; owners, Geo. H. and Dietrich Werfelman, 303 Broome St.; architect, Wm. Graul.

*First Ave.*, 381′ e of, between Thirty-ninth and Fortieth Sts., two st'y brick pump and tank house, slate roof; cost, $5,600; owner, The Equitable Gas-Light Co., 340 Third Ave.; architect, A. W. Putnam Cramer; builder, Richard Deeves.

*Worth St., No.* 121, six-st'y brick and iron store, tin roof; cost, $20,600; owner, John P. Conlon, 301 West Fifty-fifth St.; architects, Berger & Baylies; builders, Gustav Staiger and C. W. Klappert's Sons.

*Pine St., No.* 1, eight-st'y iron and marble office-building, flat asphalt roof and slated mansard; cost, $30,000; owner, Continental Ins. Co., 100 Broadway; architect, H. Kreitler.

*West Forty-first St., No.* 310, five-st'y and basement brick tenement, tin roof; cost, $16,000; owner, Peter Farley, 260 West Fifty-third St.; architects, Thom & Wilson.

*West Forty-second St., Nos.* 408, 410 *and* 412, 3 five-st'y brick tenements, tin roofs; cost, each, $17,000; owner and architect, Adolph Koschel, 228 West Fifty-second St.

*Fifty-ninth St.*, s e cor. Ninth Ave., 5 one-st'y brick stores, tin roofs; cost, each, $5,000; owner, John Boland, 337 Sixth Ave.; architect, J. M. Dunn; builder, C. J. Perry.

*Tenth St.*, n s, about 48′ e West Fourth St., four-st'y brick tenement, tin roof; cost, about $10,000; owners, H. A. & M. Hartman, 46 Clarkson St.; architect, P. H. Gilvarry; builders, George Derr and Chas. Lehmann.

*Twenty-eighth St.*, s s, 175′ w First Ave., five-st'y brick factory, tin roof; cost, $45,000; owner, Manhattan Brass Co., J. H. White, President, 14 West Thirty-ninth St.; architects, Schwarzmann & Buchman; builders, J. & L. Weber and C. W. Klappert's Sons.

*Eighty-second St.*, n s, 175′ e Fourth Ave., 2 five-st'y brick stone-front tenements, tin roofs; cost, each, $30,000; owners, Plundeke & Brandt, 303 East Eighty-sixth St., and 184 East Eighty-eighth St.; architects, Thom & Wilson.

*East Eighty-fifth St., No.* 107, five-st'y brick stone-front tenement, tin roof; cost, $18,000; owner, Simon Haberman, Belleville, N. J.; architect, John Brandt.

*Ave. A*, e s, extending from Seventy-first to Seventy-second St., ten-st'y brick malthouse, kiln and storehouse, gravel, tin and slate roof; cost, $70,000; owner, Charles Clausen, 43 East Seventy-fourth St.; architect, Adam Weber.

*Third Ave.*, w s, 25′ n Sixty-seventh St., 6 five-st'y brick tenements with stores, tin roofs; cost, $15,000 each; owners, Max S. Korn, 154 East Sixty-sixth St., Jacob Korn, 166 East Sixty-sixth St., and S. Herzog, 138 East Forty-seventh St.; architect, Alex. I. Finkle.

*East Eighty-second St., No.* 312, five-st'y brick tenement, tin roof; cost, $15,000; owner, Chas. Tillman, 507 East Eighty-fourth St.; architect, Charles Kinkel.

*One Hundred and Twenty-second St.*, s s, 125′ w Second Ave., four-st'y and basement brick carriage-factory, felt, asphalt and gravel roof; cost, $75,000; owner, James H. Butler, 179 East One Hundred and Eleventh St.; architect, Chas. Baxter.

*Second Ave.*, n w cor. One Hundred and Fifth St., 5 five-st'y brick tenements; also one-st'y brick store, tin roofs; cost, tenements, $15,000 each; owner, Bella Hoffstadt, 427 East Fifty-eighth St.; architects, Cleverdon & Putzel.

**St. Louis.**

BUILDING PERMITS.—Forty-five permits have been issued since our last report, twelve of which are for unimportant frame houses. Of the rest those worth $2,500 and over are as follows:—

United States Marine Hospital, one-st'y brick boiler house, cost, $4,500; M. E. Bell, architect; J. F. Lonergan, contractor.

Mrs. Beckmann, two-st'y brick store and dwell.; cost, $2,800; H. Anderson, contractor.

H. E. Spiering, 2 adjacent two-st'y brick tenements; cost, $3,800; A. Beinke & Co., architects; P. Talk, contractor.

Mrs. Lungen, 3 adjacent two-st'y brick stores and tenements; cost, $9,000; Wm. Riewe & Son, contractors.

Wm. A. Slasterman, 2 adjacent two-st'y brick tenements; cost, $3,500; John Scott, contractor.

E. J. White, two-st'y brick office building; cost, $2,700; J. Taylor, architect; S. S. Jones, contractor.

Aug. Schuermann, 2 adjacent two-st'y brick dwells.; cost, $3,600; H. Schuermann, contractor.

Alexander Milne, 8 adjacent two-st'y brick dwells.; cost, $10,000; Meagher, architect; sub-let.

Jno. Kirtz, two-st'y brick store and rooms above; cost, $3,200; Fred Knittel, contractor.

James Meagher, two-and-one-half-st'y brick pork and smoke-house; cost, $20,000; Milburn & Rich, contractors.

Alfred Harrington, two-st'y brick dwell.; cost, $3,000; E. Mortimer, architect; M. B. Scanlon, contractor.

Simon Gardner, two-st'y brick dwell.; cost, $4,000; J. S. Parke, contractor.

B. Hoffmann, two-st'y brick dwell.; cost, $2,500; Thos. F. Marley, contractor.

Miss M. Thomas, two-st'y brick dwell.; cost, $2,500; Thos. F. Marley, contractor.

P. W. Tountleroy, two-st'y brick dwell.; cost, $5,000; Thos. F. Marley, contractor.

**St. Paul, Minn.**

BUILDING PERMITS.—Two-st'y double dwell., s s of Nash St., bet. Mississippi and DeBow Sts.; cost, $5,355; owner, James Smith, Jr.

Two-st'y frame double dwell., w s of Broadway, bet. Tenth and Thirteenth Sts.; cost, $3,000; owner, John Nelson.

One-st'y frame dwell., s s of Hoffman Ave., bet. Short and Lizzie Sts.; cost, $2,500; owner, Mrs. Allyn.

Two-st'y brick block of stores and dwells., n s of East Seventh St., bet. Forest and Mandota Sts.; cost, $15,000; owner, M. Biefield.

Two-st'y frame dwell., n s of Cherry St., bet. Maria and Hoffman Sts.; cost, $2,000; owner, Robert Balentine.

Four-st'y brick stores and hotel, e s of Jackson St., bet. Sixth and Seventh Sts.; cost, $15,000; owner, H. H. Mayall.

Two-st'y brick veneer livery stable, s s of Selby Ave., bet. Western and Arundel Sts.; cost, $5,000; owner, Kimble P. Cullen.

One-st'y brick round-house and turn-table, e s of Custer St., bet. Odell Creek and Wood St.; owner, Minn. & N. W. R. R. Company.

One-st'y and two-st'y brick veneer freight house, e s of Ducas St., bet. Indiana and Chicago Aves.; cost, $7,000; owner, Minn. & N. W. R. R. Company.

**Toledo.**

FACTORY.—Brick manufacturing building, 100′ x 120′, four stories and basement, cor. Superior and Oak Sts., for Woolson Spice Co.; built by D. R. Locke; cost, about $35,000; N. B. Bacon, architect; A. Lombard, builder.

HOUSES.—Block of 4 brick dwellings, 80′ front, two stories and basement, cor. Madison and Ontario Sts., for Mr. D. Tracy; cost, $15,000; O. W. Vallette, architect; Jno. V. Arnsman, builder.

Frame dwell. for Mr. Churchill on Superior St.; cost, about $6,000; O. W. Vallette, architect.

SCHOOL BUILDING.—Manual training school building on Madison St., brick, three stories and basement; cost, about $25,000; E. O. Fallis & Co., architects; A. Bentley, builder.

STORE.—The contract for Lorenz Bros. five-st'y business building on Jefferson St. has been awarded to John V. Sanfleet; the cost will be about $20,000.

Three-st'y and basement building, 60′ x 110′, on St, Clair St., for Messrs. Coghlin & Lockwood; cost, about $16,000; N. B. Bacon, architect; Geo. Wilson, builder.

SUPERINTENDENT OF THE GOVERNMENT BUILDING.—Considerable interest is felt in the outcome of the contest for the superintendency of construction of the Government building here, to fill the vacancy caused by the resignation of Mr. D. W. Gibbs. The president, to avoid the charge of nepotism, refused his consent to the appointment of N. B. Bacon, who was strongly urged by citizens, irrespective of party. Two Democratic factions each have now a candidate nominated and urged at the department, and the result is awaited. Mr. Chas. Cook is the representative of one faction, and Mr. Thos. F. Huber of the other. Each was nominated without being previously notified, and each was much surprised. Each is worthy and accomplished, and the public will experience no great dissatisfaction whichever may receive the award of the appointment.

ALTERATION. Remodelling brick building into block of two dwells. on Locust St. for Mrs. Dr. Coldham; cost, about $4,500; N. B. Bacon, architect; Richard Hattersley, builder.

**General Notes.**

OGDENSBURG, N. Y.—Frame school building; cost, $3,000; owner, School Committee; architects, Johnston & Buell.

WILBRAHAM, MASS.—At a special town meeting, the town voted to build a town-hall as a memorial to her soldiers, and it was voted to raise $1,000 for the purpose, and also to instruct the town treasurer to borrow a sum not exceeding $5,000 to carry out the plan. The town has decided to build the Memorial Hall at the centre village. The building committee chosen is Marcus F. Beebe, Henry Clark, Philip Potter, Francis Clark and James Morgan.

## PROPOSALS.

**GRANITE AND BRICK WORK, BASEMENT AND AREA WALLS.**

[At Pittsburgh, Pa.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., June 11, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 16th day of July, 1885,** for furnishing all labor and material, stone, brick, mortar, etc., and building complete the basement and area walls of the extension of the court-house and post-office building at Pittsburgh, Pa., in accordance with drawings and specification, copies of which and any additional information may be obtained at this office or the office of the superintendent of the building.

Bids must be accompanied by a certified check for $500 drawn to the order of the "Secretary of the Treasury," as a guaranty that the bidder will enter into a contract, if his bid is accepted, and furnish a bond equal to the amount of the contract.

Bids received after the time of opening will not be considered.

M. E. BELL,
496 Supervising Architect.

**POST-OFFICE LOCK-BOXES AND DRAWERS FOR U. S. POST-OFFICES.**

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D C., June 16th, 1885.

Sealed proposals will be received at this office **until 2 P. M. on the 7th day of July, 1885,** for supplying and delivering lock-boxes, lock-drawers, locks, pulls, plates, etc., for United States post-offices, in Government buildings, as may be ordered during the fiscal year ending June 30th, 1885.

Copies of the specification and any additional information may be had on application at this office.

Bids must be accompanied by a certified check for $500, drawn to the order of "The Secretary of the Treasury," as a guarantee that the bidder will enter into a contract if his bid or any portion thereof be accepted, and furnish such bond as may be required.

Bids received after the time of opening will not be considered.

M. E. BELL,
496 Supervising Architect.

**CUT GRANITE.**

[At Washington, D. C.]

OFFICE OF BUILDING FOR STATE,
WAR AND NAVY DEPARTMENTS,
WASHINGTON, D. C., June 10th, 1885.

Sealed proposals for furnishing, cutting and delivering all the Granite required for two winding stairways, in west wing of the Building for State, War and Navy Departments, in this city, will be received at this office **until 12 M., July 10th, 1885,** and opened immediately thereafter in presence of bidders.

Specifications, general instructions to bidders, and blank forms of proposal will be furnished to proprietors of established granite works on application to this office.

THOS. LINCOLN CASEY,
496 Colonel, Corps of Engineers.